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DEPARTMENT OF THE ARMY FIELD MANUAL

061

COMBAT INTELLIGENCE



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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Purpose and Scope

a. This manual furnishes guidance concerning combat intelligence at division through theater army and comparable communications zone commands. It is the basic manual on combat intelligence. This manual amplifies FM 101-5 and should be used in conjunction with that manual.


b. This manual describes collection of information of the enemy and the area of operations, production and dissemination of combat intelligence, counterintelligence, and intelligence training and planning. Intelligence staff organization, functions, and responsibilities are covered in FM 101-5. Details of procedures and techniques described in other manuals are not included herein.

c. Users of this manual are requested to submit recommendations for changes or corrections direct to the Commandant, U. S. Army Command and General Staff College, Fort Leavenworth, Kansas. For format and guidance in preparation, see AR 310-3.

2. Application

The material presented is applicable to all forms of warfare and under all environmental conditions. Aspects of the material vary in importance with the different forms of war, the scale of use of nuclear weapons, the locale, and type of military operations being conducted.

3. Intelligence



Intelligence is the product resulting from the collection, evaluation, analysis, integration, and interpretation of all available information which concerns one or more aspects of foreign nations or of areas of operations and which is immediately or potentially significant to planning. Intelligence is developed in peace and war, in contact or out of contact with the enemy. In effect, intelligence is that which is accepted as fact, based on currently available information, about an actual or potential enemy or area of operations.

4. National Intelligence

National intelligence is the integrated product of intelligence developed by all governmental departments that covers the broad aspects of

national policy and security. It is of concern to more than one department or agency and transcends the exclusive competence of a single department or agency. National intelligence is used to coordinate the activities of government departments to produce and carry out integrated national policies, plans, and programs. See appendix XXI for details of organization for national intelligence.

5. Military Intelligence

Military intelligence is used in preparing and executing military policies, plans and programs. It includes both strategic and combat intelligence.

6. Strategic Intelligence

a. Strategic intelligence is that knowledge pertaining to the capabilities and vulnerabilities of foreign nations, which is required by national planners for the formation of an adequate national defense in time of peace and forms the basis for projected military operations in time of war.

- (1) The capabilities of a nation are the available, feasible courses of action to accomplish national objectives in peace or war. Capabilities are determined by analysis of national strengths and weaknesses in comparison with the strengths and weaknesses of another nation or combination of nations.
- (2) A nation's vulnerabilities are the weaknesses which make it susceptible, in peace or war, to any action which reduces its war potential and will to fight. Vulnerabilities of nations are determined in the same manner as enemy capabilities.

b. Strategic intelligence is oriented on national objectives. It assists in determining feasible national objectives and furnishes a basis for planning methods for accomplishing these objectives. In addition, strategic intelligence produces a large volume of detailed basic military intelligence on nations. This material is produced incidental to the primary purpose of strategic intelligence and a great part of it is used in the training and operations of military units.

c. Factors which influence the military capabilities, vulnerabilities, and probable courses of action of nations, are considered components of strategic intelligence. Major components are—

- (1) *Military geography*, which deals with the natural and man-made features of the physical environment as they affect military plans and operations.
- (2) *Transportation and telecommunications intelligence*, which deals with the military aspects of a nation's transportation systems and its machinery to transmit information over long distances, usually by electrical means.

- (3) *Sociological intelligence*, which deals with the population and manpower factors, or demography of a nation and the psychological aspects of its people, either as a whole or in separate groupings.
- (4) *Political intelligence*, which deals with the structure of governments, political parties, national policies, and the foreign relations of governmental organizations.
- (5) *Economic intelligence*, which deals with the extent and use of natural and human resources and national industrial potential.
- (6) *Scientific intelligence*, which deals with the progress of scientific research and development as it concerns national economy and military potential.
- (7) *Armed forces intelligence*, which deals with the direct, physical means by which a nation wages warfare to include the size, organization, capacity for expansion, effectiveness, tactics, and strategic practices of the armed forces of a nation.
- (8) *Biographical intelligence*, which deals with the study of individual foreign personalities who are of actual or potential importance. It is not a separate component because personalities are considered in relationship with one or more of the components described above. However, because of the methods used in collecting, evaluating, and compiling biographical information, it is regarded as a separate study.

d. Components of strategic intelligence are interrelated. Not one of them can stand alone. For example, scientific intelligence contributes heavily to other components, particularly economic and armed forces intelligence. All the components are integrated in producing finished intelligence.

7. Combat Intelligence

Combat intelligence is that knowledge of the enemy, the weather, and the geographic features which is used in the planning and conduct of tactical operations within a given area. It provides the commander with information and conclusions about the area of operations, enemy capabilities, and enemy vulnerabilities to permit determining their probable effect on his courses of action. Combat intelligence is required by the commander in determining the best use of his firepower and maneuver forces to accomplish his mission and maintain the security of his command. In noncombat commands, combat intelligence provides the basis for security measures and decisions on the best use of the area of operations in accomplishing the mission.

8. Relationships of Combat Intelligence to Strategic Intelligence

a. Strategic intelligence usually is produced slowly by study and assembly of a large volume of detailed information. Combat intelligence

usually involves rapid evaluation and interpretation of current information. Strategic and combat intelligence are closely related and have many subjects of common interest. At the start of military operations, strategic intelligence, such as maps, terrain studies of ports, rivers, towns, and other terrain features, and political, sociological, economic, and order of battle studies, may be the major source of intelligence of the enemy and the area of operations. Below field army level, strategic intelligence is normally of little immediate importance except as the basis for the production of some combat intelligence, particularly analyses of the area of operations.

b. Usually, intelligence loses validity with the passing of time. The situation changes and the information on which intelligence is based either is no longer correct or has been modified significantly. Generally, strategic intelligence does not lose validity as quickly as combat intelligence. The loss rate for combat intelligence is even greater with increased scales of use of nuclear weapons and the enemy use of fluid operations.

c. Combat units assist in the production of strategic intelligence. Information from prisoners of war on political and economic conditions within the enemy area may be important in the production of strategic intelligence but of little value for combat intelligence. Information of identifications of enemy units and characteristics of enemy equipment are used in the production of both combat and strategic intelligence.

9. Counterintelligence

Counterintelligence is inseparable from intelligence operations. Counterintelligence is discussed in chapter 6. For this reason, every military intelligence activity has a counterintelligence or security control aspect. The objective of counterintelligence is to safeguard information, personnel, materiel, and installations against the espionage, sabotage, or subversive activities of foreign powers, and disaffected or dissident groups or individuals which constitute a threat to the national security. Both offensive and defensive measures are used to provide security for a command. Counterintelligence activities include—

a. Neutralization or destruction of the effectiveness of actual or potential hostile intelligence and subversive activities.

b. Detection of treason, sedition, and disaffection within military ranks and among the civilian employees of the army.

10. Specialized Categories of Intelligence

Although military intelligence is classified broadly as strategic or combat, there are several functional categories of intelligence from which both strategic and combat intelligence are derived. Some of these are:

a. *Order of battle intelligence*, which concerns enemy units, their strength, identification, disposition, organization, equipment, tactics, combat efficiency and history, and personal data of their key officers. See FM 30-19.

b. *Technical intelligence*, which concerns foreign technical developments which have a practical war application and the physical characteristics, performance, capabilities, and limitations of materiel and installations used by and for foreign military forces. It also includes the order of battle of foreign agencies having functions similar to those of the technical services of the U. S. Army. See FM 30-16.

c. *Communications intelligence (COMINT)*, which is derived from the study of enemy signal communications.

d. *Electronic intelligence (ELINT)*, which is derived from the study of enemy electromagnetic emissions except those from nuclear sources.

e. *Intelligence targeting*, which is the process of selective determination of critical targets for exploitation by specialized long range collection agencies. The process is designed to assemble data from all available services on enemy installations or areas from which critical information can be obtained, to determine their relative priority for exploitation and the capabilities of available intelligence collection means or agencies.

Section II. THE OPERATIONAL ENVIRONMENT

11. Influence of the Operational Environment on Intelligence Operations

Intelligence operations concentrate on those aspects of the operational environment pertaining to the enemy and the area of operations which influence the commander's choice of a course of action to accomplish the mission. The enemy situation and the area are analyzed to determine the key elements that affect military operations. These key elements may be extremes of weather and terrain, the enemy use of a particular form of combat power, the implementation of an enemy capability previously held in restraint, or the use of resources and characteristics of the area to make the accomplishment of the mission possible or easier.

12. Influence of Intelligence Operations on the Operational Environment

Intelligence operations assist in influencing the operational environment. For example, counterintelligence operations reduce the ability of the enemy to gain information and take action to change significantly aspects of the operational environment to his advantage. Intelligence operations that uncover enemy vulnerabilities assist the commander in

selecting a course of action leading to a change in relative combat power to the disadvantage of the enemy.

13. Influence of the Mission

The mission of the command is the single factor of the operational environment that dominates intelligence operations. Intelligence operations are based on producing the intelligence necessary to accomplish the mission. Facts are interpreted for their significance in relation to accomplishing the mission. Without a thorough knowledge and understanding of the assigned mission, intelligence operations cannot be properly directed. However, intelligence operations do not cease in the absence of an assigned mission. Logical missions are assumed and intelligence operations are conducted in anticipation of receipt of a mission.

14. Scale of Use of Nuclear Weapons

The scale of use of nuclear weapons influences intelligence operations by affecting intelligence requirements. These requirements reflect military operations that are feasible under different scales of use of nuclear weapons. The scale of use of nuclear weapons affects the relationship between fire and maneuver. This influences intelligence operations aimed at target acquisition and securing intelligence of avenues of approach. Similarly, the scale of use of nuclear weapons (limited, intermediate, or unrestricted) determines the degree of dispersion required for adequate security of units and installations. This influences intelligence operations to secure intelligence of the physical area of operations.

15. Intelligence Operations and Intermediate Scale of Use of Nuclear Weapons

a. During intermediate scale of use of nuclear weapons, maneuver generally dominates tactical operations. Intelligence operations are oriented on intelligence considerations that affect maneuver and target acquisition. Without adequate intelligence about targets, the commander is unable to make best use of the fire support portion of his combat power and consequently is restricted in selecting appropriate courses of action to accomplish his mission.

b. The intermediate scale of use of nuclear weapons dictates that combat forces adopt measures which permit speed, dispersion, and a high degree of air and ground mobility on the battlefield. Intelligence of air and ground routes influences selection of friendly courses of action. Intelligence of routes available to the enemy assists in determining enemy capabilities and vulnerabilities. The same intelligence helps determine the areas on which to focus target acquisition and also influence selection of friendly courses of action.

c. Counterintelligence operations focus on measures to protect nuclear delivery means (and associated installations) and to reduce the effectiveness of enemy target acquisition.

d. Intelligence operations and intelligence targeting seek to ascertain the enemy capabilities to deliver nuclear fires. Knowledge of the enemy nuclear capabilities is the basis for measures to destroy or reduce the effectiveness of these capabilities. Such knowledge also permits the commander to judge the degree of vulnerability a command can accept in accomplishing the mission. This knowledge may be the deciding factor in selecting a course of action and locating installations and facilities.

16. Intelligence Operations and Unrestricted Scale of Use of Nuclear Weapons

The considerations affecting intelligence operations under conditions of intermediate scale of use of nuclear weapons also apply under conditions of unrestricted use of such weapons. However, certain intelligence operations receive greater stress under these conditions. In the higher scales of use of nuclear weapons, the fire-maneuver relationship changes so that fires become the dominant element of combat power. In such situations intelligence operations are more concerned with target acquisition and counterintelligence than with the influence of the area of operations on ground and air mobility. A higher scale of use of nuclear fires requires more effective target acquisition to produce timely results without exposing a disproportionate part of the command to destruction by enemy nuclear fires. Counterintelligence operations are increased to preserve the integrity of the command by denying the enemy the ability to acquire targets.

17. Forms of War

The same general intelligence requirements exist under all forms of war. These intelligence requirements may vary in importance with each form of war. At division level, political considerations are usually most important in making military decisions during situations short of war. Consequently, under that form of war, intelligence operations may require greater coverage of the political factor than under other forms of war.

18. Situations Short of War

a. Under these conditions, combat intelligence is wider in scope than under other forms of war. Particularly important is intelligence that will provide warning of the outbreak of hostilities. The Force commander usually requires more general information and intelligence of the area of the world where his force is committed. Intelligence operations are designed to provide such information and intelligence as a matter of routine for units that may be committed on short notice.

b. When a mission is assigned, intelligence operations provide information and intelligence of the characteristics of the area of operations with special emphasis on the political, social, and economic aspects. This

information and intelligence usually are derived from current strategic intelligence contained in the appropriate National Intelligence Survey (NIS) and other studies and reports produced by Department of the Army and other governmental agencies. In addition, arrangements are made to exploit available intelligence agencies in the area of operations and to develop other sources of information, particularly about guerrillas or dissident forces. Within the area of operations, intelligence operations develop the background of the unrest, identify dissident elements, provide detailed topographical information, and provide other information and intelligence on which military action can be based.

c. Counterintelligence is of utmost importance and constitutes a major part of intelligence operations.

- (1) Appropriate counterintelligence operations start on receipt of the mission. Friendly objectives, in situations short of war, may be compromised by enemy countermeasures if they become known in advance. Counterintelligence measures must overcome the handicap imposed by freedom of movement of civilians, including news media representatives, when there are no actual hostilities. If time permits, cover and deception operations are started.
- (2) Within the objective area, counterintelligence operations provide for security of supplies, equipment, personnel, and installations. Lack of effective counterintelligence operations contributes to pilferage, black-market activity, availability of supplies and arms for dissident forces, and hostile propaganda to discredit the friendly force.
- (3) Training of all individuals in counterintelligence is important. Close contact with civilians and lack of a visible enemy and actual operations frequently result in relaxation of individual security measures.
- (4) Counterintelligence measures to provide security of planning and operations require special attention. The effects of lack of protection afforded by military censorship and other controls, and close consultations with local civilian officials and allies are considered.
- (5) Situations short of war usually create a demand for interpreters beyond the capabilities of the friendly force and necessitate employment of indigenous interpreters. Security checks of such interpreters are made. Friendly police and security agencies are used to assist in such security checks.

19. Limited War

A major consideration in intelligence operations, under conditions of limited war, is the production of intelligence that provides warning of

the extension of the conflict into general war. Intelligence operations can be affected by restrictions that may apply to both sides. These restrictions may include limitations on the use of nuclear weapons, area limitations, target limitations, or restrictions on the use of various means of combat power such as chemical and biological warfare. Intelligence operations, however, are conditioned by the threat that the limitations or restrictions may be removed without warning and that the conflict may develop into general war.

20. General War

During the opening phases of general war the emphasis in intelligence operations is on maintaining the security of the command, providing early warning of the start of major enemy tactical operations, and protecting intelligence collection means. When tactical operations begin, intelligence operations are oriented on securing the necessary intelligence to achieve superiority of fires and to continue to maintain the integrity of the command.

21. Friendly Force Structure

The friendly force structure provides means for the conduct of intelligence operations and poses problems in coordination of intelligence operations. Although intelligence operations are oriented primarily on aspects of the operational environment external to the command, the *conduct* of intelligence operations is affected by the friendly force structure. At times, the friendly force structure may dictate that a headquarters conduct intelligence operations which would normally be performed by a higher headquarters. For example, in a small theater of operations, a field army headquarters may be required to perform the intelligence operations normally conducted by a theater Army headquarters, or a reinforced division may be required to perform the intelligence operations of a field army. In such cases augmentation with appropriate intelligence units and agencies is required.

22. Means for Conducting Intelligence Operations

Specialized intelligence units and information collection devices are inadequate for collecting all the information required to produce intelligence. Intelligence activities are part of the operations of all military forces and are not restricted to specialized units. Forces organized primarily for close combat, fire support, other combat support, and administrative support also perform intelligence operations. The amount of effort devoted to intelligence operations varies with the primary mission and the requirements of the situation. For example, close combat forces frequently devote the major portion of their effort to intelligence operations.

23. Other U. S. Government Agencies

a. The capabilities of all other available U. S. Government agencies are exploited in the production of intelligence. Other armed services assist the Army. Distant air reconnaissance and production of weather information are two forms of such assistance. Army intelligence agencies maintain liaison with intelligence agencies of other U. S. armed forces operating in the same area for the exchange of information and mutual assistance. This liaison reduces duplication of effort and makes available additional sources of information.

b. At times, other government agencies are represented in the area of operations. The agencies represented most frequently are the State Department and the Central Intelligence Agency. In situations short of war, local State Department agencies are of particular value in developing current intelligence of the area. The appropriate Army headquarters prescribes procedures for maintaining liaison with these agencies.

24. Combined Operations

a. In combined operations (involving armed forces of other nations), liaison also is maintained with the intelligence agencies of the participating armed forces. Subject to policies established by the theater commander, certain intelligence operations may be a combined effort by all the nations making up the force. Combined efforts avoid duplication, conserve means, and insure maximum dissemination of certain types of intelligence.

b. In working with intelligence agencies of other nations, care and tact are exercised in implementing directives pertaining to the security and dissemination of specified types of information. Information and intelligence to be disseminated only to U. S. forces are kept to a minimum.

25. Joint Operations

a. In joint task force or unified command operations, the basic intelligence function is unchanged. However, the force structure, and other aspects of the operational environment such as level of command, and intelligence support from external sources influence intelligence organization and procedures. FM 110-5 discusses in detail the operations of joint forces.

b. The function of the intelligence division, J2, of a joint force is to produce timely intelligence of the area of operations and the enemy. Each service component of the joint force assists the others in producing intelligence to the extent permitted by its own requirements and those of the joint force commander. Each component of the joint force must know the intelligence requirements of the other components. The joint force commander insures that duplication of the intelligence effort within the force is avoided by publication of standing operating procedures

(SOP). The scope of these procedures depends on the nature of the command, types of forces therein, and the character of the operations being conducted. The following are considered for inclusion in such an SOP:

- (1) Responsibilities for collection and dissemination of information and intelligence.
- (2) Responsibilities for counterintelligence operations to include standard security measures.
- (3) Standard procedures for such matters as interrogation of prisoners of war, processing of captured enemy documents and materiel, collection of meteorological data, and intelligence exploitation of friendly evaders and escapers.
- (4) Standardization of intelligence and counterintelligence reports and channels of communication.

c. The joint force intelligence division plans the overall collection effort to provide the commander with the timely intelligence he requires. In assigning collection tasks, consideration is given to the availability and capability of collecting agencies to fulfill tasks, regardless of service component. At the same time, each service component also collects the intelligence information it needs and freely exchanges such information with the other components.

d. In producing intelligence, a joint force headquarters considers the information of the enemy as a whole and not as separate air, naval, and ground force aspects. Complete integration of information and an analysis of the enemy situation permit estimating the enemy situation in its entirety.

e. In large joint forces, the factors of time and distance from national and departmental agencies, or other external sources of intelligence, may make it desirable for the joint force to perform certain intelligence functions normally performed by those agencies. When such functions are performed, higher headquarters is informed to permit review and prevent unnecessary duplication. These intelligence functions might include—

- (1) Publication of technical intelligence bulletins.
- (2) Publication of intelligence of a general orientation character.
- (3) Preparation and dissemination of other intelligence which would lose usefulness if delayed in dissemination.

f. In areas or situations where there is coordination by mutual cooperation by commanders, intelligence policies are announced by each command for his own command. Each commander is responsible for coordinating intelligence policies of his command with other commanders affected by such policies.

Section III. INTELLIGENCE OPERATIONS

26. General

a. All operations are influenced by the commander's mission, limitations imposed by national policy or higher commands, scale of use of nuclear and other weapons, locale, the nature of friendly and enemy forces, and the civil population in the area. These elements are part of the operational environment. The total operational environment is composed of all the conditions, circumstances, and influences surrounding and affecting the use of military force.

b. Intelligence operations vary with the requirements posed by the operational environment as described in paragraphs 11 through 25. Techniques and procedures used in intelligence operations reflect the capabilities of available means. However, certain basic intelligence concepts are considered valid regardless of the available means and particular conditions of the operational environment. This section discusses intelligence operations principles. The remainder of the manual covers the application of intelligence concepts to combat intelligence.

27. Intelligence Cycle

a. The activities connected with intelligence follow a four-step cycle oriented on the commander's mission. The four steps are:

- (1) Collection of information (ch. 2).
- (2) Processing of the collected information (ch. 3).
- (3) Dissemination and use of the resulting intelligence (ch. 4).
- (4) Planning the collection effort and orders (ch. 5).

b. This cycle is continuous. New information is collected while other information is processed and intelligence is used. The use of intelligence generates requirements for additional intelligence.

28. Use

Intelligence must be adequate for the use to which it is to be put. Intelligence must increase knowledge and understanding of the particular problem under consideration in order that decisions may be reached. A thorough understanding of the nature of the problem or the commander's mission is essential for production of useful intelligence. In addition, early determination of the nature of the intelligence required to permit a decision also is essential for the production of useful intelligence.

29. Timeliness

Intelligence must be timely. The best intelligence is valueless unless it reaches the user in time to serve as a basis for appropriate action. Timeliness may involve some sacrifice of completeness and accuracy in

the intelligence product. At times, decisions are based on incomplete intelligence because the situation may not permit postponing a decision until complete intelligence can be produced. An understanding of the intended use of particular intelligence and the problem or mission for which it is required, is a guide to the degree of accuracy and completeness required.

30. Relation of Intelligence and Operations

a. Intelligence operations within the Army are an integral part of the operations of all units, both combat and service. The overall operation of the entire Army in accomplishing its mission in the field is measured and determined by the intelligence which it develops and uses. Tactics and strategy are at the same time the cause and effect of intelligence operations.

b. Staff agencies having responsibility and authority for preparing and issuing operational orders in the name of the commander and those having responsibility for intelligence operations must work as one team. Only in this manner can orders and plans reflect available intelligence, and take full advantage of knowledge of the situation and enemy capabilities and vulnerabilities. Responsibility for coordination rests jointly on intelligence and operations staff agencies. Differences in views on the implication of the intelligence must be resolved by the commander or his representative authorized to act for him in such matters so that orders and requests are consistent.

31. Geographical Area of Intelligence Operations

Different commanders need information of different geographic areas. Some of their needs, however, are from overlapping areas. Intelligence plans, orders, and requests, are concerned with definite areas, particularly the *area of influence* of the command. This area is that portion of the assigned zone or area of operations in which the commander, by his own means, is capable of directly influencing operations by the employment of his available combat power. Intelligence operations, however, also include the *area of interest* of the command to the extent required to permit planning for the forward extension of the area of influence or for the displacement of potential targets into the area of influence. The area of interest is that area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory to the objectives of current and planned operations. It includes areas occupied by enemy forces which if employed in the area of influence could jeopardize the accomplishment of the mission. In those portions extending beyond the area of influence, the commander relies on higher, supporting and adjacent commands in the conduct of operations.

32. Planning

a. Intelligence planning requires anticipation of intelligence needs, an organization to fulfill the needs, and supervision of the organization. Intelligence planning reflects changing conditions by developing and exploiting new sources of information, improving methods, and increasing effectiveness of dissemination.

b. Intelligence planning results in collection of information on subjects of current interest and future value. If unsatisfactory intelligence is being developed on any subject of current interest, corrective action is taken without delay. Intelligence personnel take the initiative in collecting information that appears to be useful, in addition to the information specifically requested.

33. Flexibility

Procedures which cannot be changed to meet the requirements of a given situation generally lead to failure. While standard procedures generally make intelligence operations more effective, they are not followed blindly. Procedures are flexible to meet unexpected requirements. Intelligence operations are based on reason and judgment and not on fixed procedures.

34. Imagination and Resourcefulness

a. Intelligence operations require imagination and foresight. Policies and procedures which limit the imagination or initiative of subordinate agencies are avoided. Intelligence personnel and agencies use resourcefulness so that all available information can be developed and exploited and resulting intelligence, in suitable form, given to the user.

b. The self-evident is never accepted without great caution. Military forces carry out deception to fix in the mind of the opposing force certain false assumptions to achieve surprise. Regardless of appearances, the possibility of enemy deception is constantly considered.

c. Intelligence operations are based on the assumption that the situation always changes and does not remain static. During periods of relative inactivity, intelligence operations are designed to detect any signs of changes in the situation of a potential or actual enemy. At such times the significance of information, and even the absence of it, assumes immediate importance. Doubt as to the probability of adoption of enemy capabilities is resolved in favor of positive and aggressive action on the part of the enemy. Blind acceptance of the continuance of the current situation may be fatal.

35. Security

a. The nature of intelligence requires constant security measures to deny unauthorized personnel information about operations of intelli-

gence agencies, sources of information, and the intelligence product. The enemy has an advantage if he knows the extent of the intelligence the opposing force has of his capabilities, vulnerabilities, and probable courses of action. Deception measures are taken to conceal strength and intentions. The knowledge of the extent to which these measures have succeeded is of great value.

b. While the effects of compromise of complete intelligence studies and estimates are obvious, the cumulative effects of compromise of fragmentary information also are dangerous. All military forces try to obtain and use bits of information to build a complete intelligence picture.

c. A clear distinction is made between security and secrecy. Intelligence is of value only if it gets to the authorized user. Security measures must not hinder dissemination of information or intelligence to those who need it. Intelligence agencies must freely and completely exchange information and intelligence to permit production of the best possible intelligence.

36. Leadership

Effective direction of intelligence operations requires good leadership and a knowledge of intelligence operations. All leaders must thoroughly understand the object, nature, and scope of the intelligence operations they are directing and the available means for performing them. Close and constant contact must be maintained with available intelligence agencies which produce the required information without having the leader lose his overall perspective.

CHAPTER 2

COLLECTION OF INFORMATION

Section I. GENERAL

37. Introduction

Intelligence can be neither better nor more complete than the information from which it is derived; however, the collection of information is the most difficult step in the intelligence cycle. The enemy's interests demand that he make every practicable effort to foil our attempts to gain information. Accordingly, he attempts to conceal his strength, dispositions, and movements; he enforces censorship and communications security measures; he often disseminates false information and adopts tactical measures designed to deceive us.

38. Penetrating Enemy's Countermeasures

In order to penetrate the enemy's countermeasures against our intelligence effort, the intelligence officer must exploit continually every conceivable source of pertinent information.

39. Planning and Executing Collection Effort

To efficiently plan and execute a collection effort, the intelligence officer must have a thorough knowledge of the available sources of information and collecting agencies and the type of information that each collection agency can provide.

40. Intelligence Officer

The intelligence officer must possess a general understanding of operations of the command in order to provide the particular intelligence required for success. In addition, he must be especially competent in the fields of reconnaissance and counterreconnaissance operations by which intelligence is directly acquired or denied.

Section II. SOURCES

41. General

Sources of information are the actual *origin* from which information is obtained. Sources frequently are not under friendly control.

42. Sources

The most common sources of information for intelligence purposes are enemy activity; prisoners of war; local civilians; recovered military personnel; captured enemy documents; enemy materiel; enemy signal communications and other electromagnetic emissions; duds; shell and missile fragments; craters; areas contaminated by toxic chemical agents, biological agents or residual nuclear radiations; nuclear bursts; photographs; maps; weather forecasts; studies and reports; and civilian agencies. These sources are discussed in appendix II.

Section III. AGENCIES

43. Agencies

a. An *agency* is any individual or organization which collects or processes information. Agencies either collect, process, or do both. No distinction is made between agencies which collect information and those which produce intelligence. At each headquarters, subordinate, adjacent, and higher commands and some intelligence specialists are considered as agencies.

b. Collection agencies use varying means to collect information. The more common means are interrogation, examination, observation and listening posts, ground and airborne surveillance devices, air and ground reconnaissance, reconnaissance in force and by fire, radiological monitoring and survey, and interception of enemy communications and non-communications electromagnetic radiation.

44. Troops

a. Units of the command which acquire information principally through contact with the enemy or observation are collecting agencies. Some units, such as armored cavalry units, are specifically organized to collect information by conducting combat operations. Other units, such as certain Army aviation units, are organized specifically to gather information by observation.

b. Certain troop units provide information as indicated below:

- (1) *Artillery*. Locations of hostile mortars, cannon, and missile launching sites determined by artillery countermortar and ground radar observer sightings, corps field artillery observation battalions, airborne sensory devices, and by analysis of shell reports and craters. Air defense units also furnish information on hostile airborne objects and air activity.
- (2) *Army aviation*. Disposition of enemy forces, location and nature of enemy activities, installations, terrain features, effectiveness of camouflage and concealment measures, nuclear

weapons burst type, damage estimates, radiological contamination extent and degree, and confirmation of particular information from other agencies provided by surveillance of the battle area within the effective operational radius of Army aircraft.

45. Technical Intelligence Detachments

a. Each technical service maintains intelligence detachments to perform the following duties:

- (1) Collect, identify, and examine captured enemy materiel.
- (2) Make preliminary tests and reports on capabilities, limitations, use, and effectiveness of enemy materiel.
- (3) Arrange for evacuation of selected enemy materiel and recommend disposition of enemy materiel of no intelligence value.
- (4) Prepare questionnaires for prisoner of war interrogation.
- (5) Instruct on recognition characteristics, use, maintenance of enemy materiel, countermeasures, and interchangeability of our own and Allied materiel.
- (6) Evaluate effectiveness of our own and Allied weapons and ammunition against enemy materiel.
- (7) Investigate intelligence targets to evaluate enemy scientific and technical achievements in research, development, production, and storage so that further detailed analyses may be made by appropriate personnel.

b. The capture of new or special interest equipment is reported through intelligence channels. The appropriate technical intelligence detachment in the area is notified or the next higher headquarters is requested to designate a detachment to examine the captured materiel. These detachments make a preliminary examination and report, and if necessary, arrange for evacuation of the item for further study. Information reported by these detachments includes capabilities, limitations, and countermeasures. Detailed examination is usually made at appropriate technical installations.

c. Technical intelligence detachments normally are assigned to theater army and are attached to subordinate commands to include corps. They are controlled by the appropriate special staff officer of the command to which attached. Intelligence requirements on the detachments are placed through the special staff officer concerned. Technical intelligence reports are disseminated through technical service channels. Dissemination of technical intelligence within a theater is normally limited to items of immediate concern to troops and theater agencies. See FM 30-16 for detailed discussion of technical intelligence.

d. At corps and higher headquarters, the attached or assigned military intelligence unit has a technical intelligence coordination section. This

section assists the intelligence officer in the coordination of technical intelligence matters.

46. Military Intelligence Specialists

Some military intelligence specialists are also collection agencies. Typical ones are prisoner of war interrogators, photointerpreters, interpreters, document analysts, security unit personnel, and strategic intelligence research and analysis personnel. Military intelligence specialists may include personnel especially trained for very long-range patrols or raids on selected enemy targets or target areas deep in the enemy rear.

47. Electronic Warfare Units

These units furnish information and intelligence of enemy capabilities in electronic warfare. Supporting electronic warfare units are kept informed of current intelligence requirements (ch. 7).

48. U. S. Army Security Agency Units

U. S. Army Security Agency (USASA) units support divisions, corps, and armies and furnish information derived from enemy communications and noncommunications electromagnetic emissions. (See AR 10-122.) The supporting USASA unit is kept informed of current requirements. The supporting USASA unit commander also procures intelligence information from adjacent and higher USASA units.

49. Field Operations Intelligence Units

Field Operations Intelligence (FOI) units, usually controlled at field army, furnish information on activities in enemy rear areas. FOI units furnish a liaison team to effect coordination with the command in whose area they are operating. See FM 30-9A.

50. Air Force and Navy Agencies

Collection facilities of the Air Force and Navy include many means besides air reconnaissance. They collect large quantities of information useful in producing intelligence to meet Army requirements.

51. Special Staff Officers

a. Special staff officers and the troops under their command or control obtain information of intelligence value. Special staff officers furnish the intelligence officer information and intelligence obtained from higher headquarters through technical service channels. The following special staff officers can furnish information of the types indicated:

- (1) *Chemical*. Information and intelligence of enemy chemical and biological troops, materiel, installations, tactics, and capabilities. The location, size, duration, and effects of chemical and biological contamination; location, extent, and degree of radi-

ological contamination caused by or expected from nuclear weapons.

- (2) *Engineer*. Information and intelligence on terrain, enemy fortifications, engineer troops, tactics; materiel, and capabilities. Terrain information includes stream data (width, depth, condition of banks and bottom, rate of flow), landing beach data, trafficability studies, and port, railroad, canal, pipeline, airfield, and bridge data. (See FM 30-10.) Special engineer units, including engineer terrain detachments, prepare terrain studies, topographic maps, terrain models, and map supplements. Engineers also provide flood warning service. See FM 5-30.
- (3) *Medical*. Information on medical and public health aspects to include health hazards due to weather or disease; capabilities, limitations, and vulnerabilities of enemy medical materiel and methods; and information and documents from enemy personnel under medical treatment.
- (4) *Ordnance*. Information and intelligence on the capabilities, limitations, and vulnerabilities of enemy ordnance materiel; maintenance methods and weakness; and location and composition of enemy ammunition stocks.
- (5) *Provost marshal*. Information on incidents involving enemy agents, saboteurs, guerrillas, bypassed units, enemy raiding parties, and other security threats.
- (6) *Quartermaster*. Information on the location and size of enemy petroleum and general supplies stocks; recognition data on enemy uniforms and insignia; and capabilities, limitations, and adequacy of enemy quartermaster-type materiel and quartermaster services.
- (7) *Signal*. Information on the capabilities, limitations, and vulnerabilities of enemy signal equipment and personnel, enemy signal and electronic warfare practices, capabilities, limitations, and vulnerabilities; presence and use of special equipment such as radar, infrared, and other sensory devices (ch. 7); and ability of the enemy to maintain effective communications.
- (8) *Transportation*. Information on status of enemy transportation, operational characteristics, capacities, adequacy, and military use of transportation routes, and equipment in the area of operations, to include railroads, highways, waterways, ports, and beaches with particular reference to capabilities to move units.
- (9) *Staff weather officer*. Climatic information, weather observations, and weather summaries.

b. All special staff officers are capable of advising on similar enemy functions because of the activities performed in carrying out their

assigned responsibilities. The intelligence officer consults with appropriate special staff officers on specialized enemy activities. In many cases the activities of special staff officers lead to production of intelligence of the types described in *a* above.

52. Stay-Behind Units

Stay-behind units are usually combat elements isolated in the enemy rear, either deliberately or as a result of combat operations. When deliberate stay-behind elements are used, the preparation of the unit for its mission is coordinated by the entire staff. To be most effective, such elements must be specially trained and equipped, particularly with suitable communication means, before employment. As part of the normal training program, all units are trained in stay-behind roles in the event of isolation in the enemy rear area. Stay-behind units are particularly valuable for collection of information for target acquisition.

53. Clandestine Agents, Army Special Forces, and Guerrillas

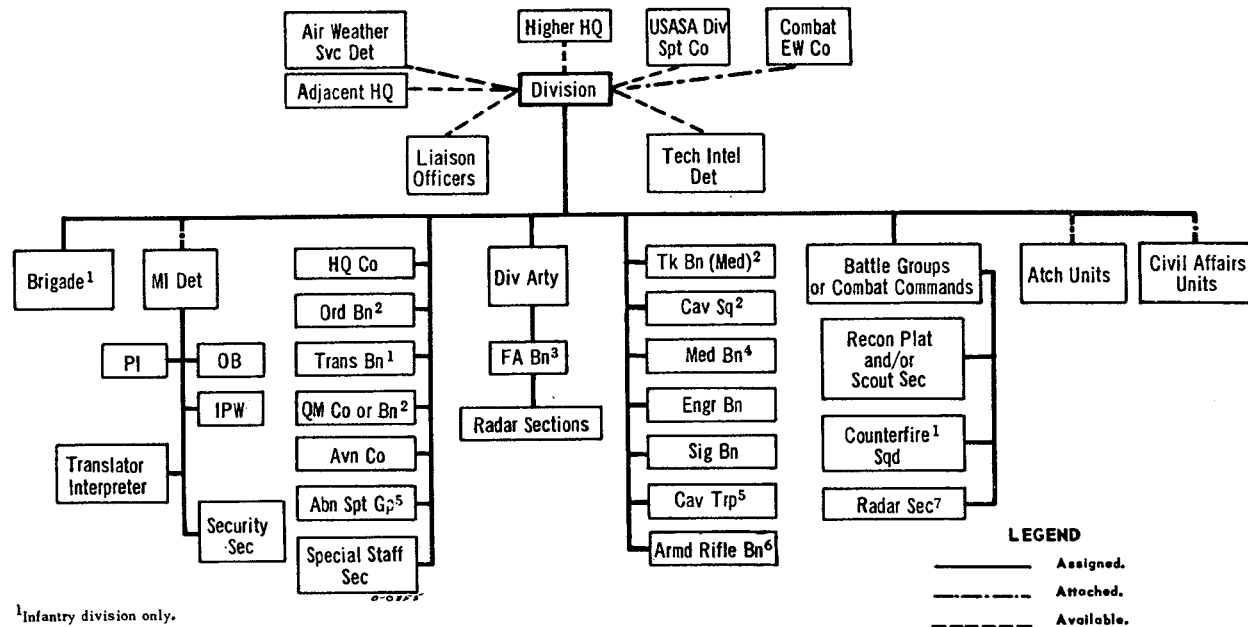
a. The nuclear battlefield, or any other environment in which units are widely dispersed, is highly suitable for the operations of clandestine agents, long range patrols, raiders, Army special forces elements, and guerrillas. Their operations deep in the enemy rear area provide information of particular importance for target acquisition. The collection activities of these agencies are integrated with the entire collection effort. They are provided with suitable communications to permit timely receipt of orders and transmittal of information. The collection activities of these agencies are coordinated with the use of firepower by the command to prevent their destruction. Clandestine agents are usually controlled by field army and higher headquarters.

b. The use of clandestine agents, Army special forces, guerrillas, and stay-behind units for collecting information is influenced by their movement capabilities and communication limitations. Operating in enemy areas, their ability to move is limited by threat of detection and logistical problems. Constant communication with friendly forces is usually not possible because of the possibility of disclosing locations of communication facilities. Provisions are made for special reporting of urgent information. In requesting the use of clandestine agents, Army special forces, guerrillas, and stay-behind units for collection tasks, consideration is given to the time required to process the request to the headquarters controlling these forces and the time for the desired information to reach the requesting headquarters.

Section IV. AVAILABILITY OF AGENCIES

54. Division, Corps, and Field Army

The agencies usually available at a division, corps, and field army are shown in figures 1, 2, and 3.



¹Infantry division only.

²None in airborne division.

³Separate batteries in airborne division.

⁴Company in airborne division.

⁵Airborne division only.

⁶Armored division only.

⁷Organic to battalions in the armored division.

Figure 1. Division intelligence agencies.

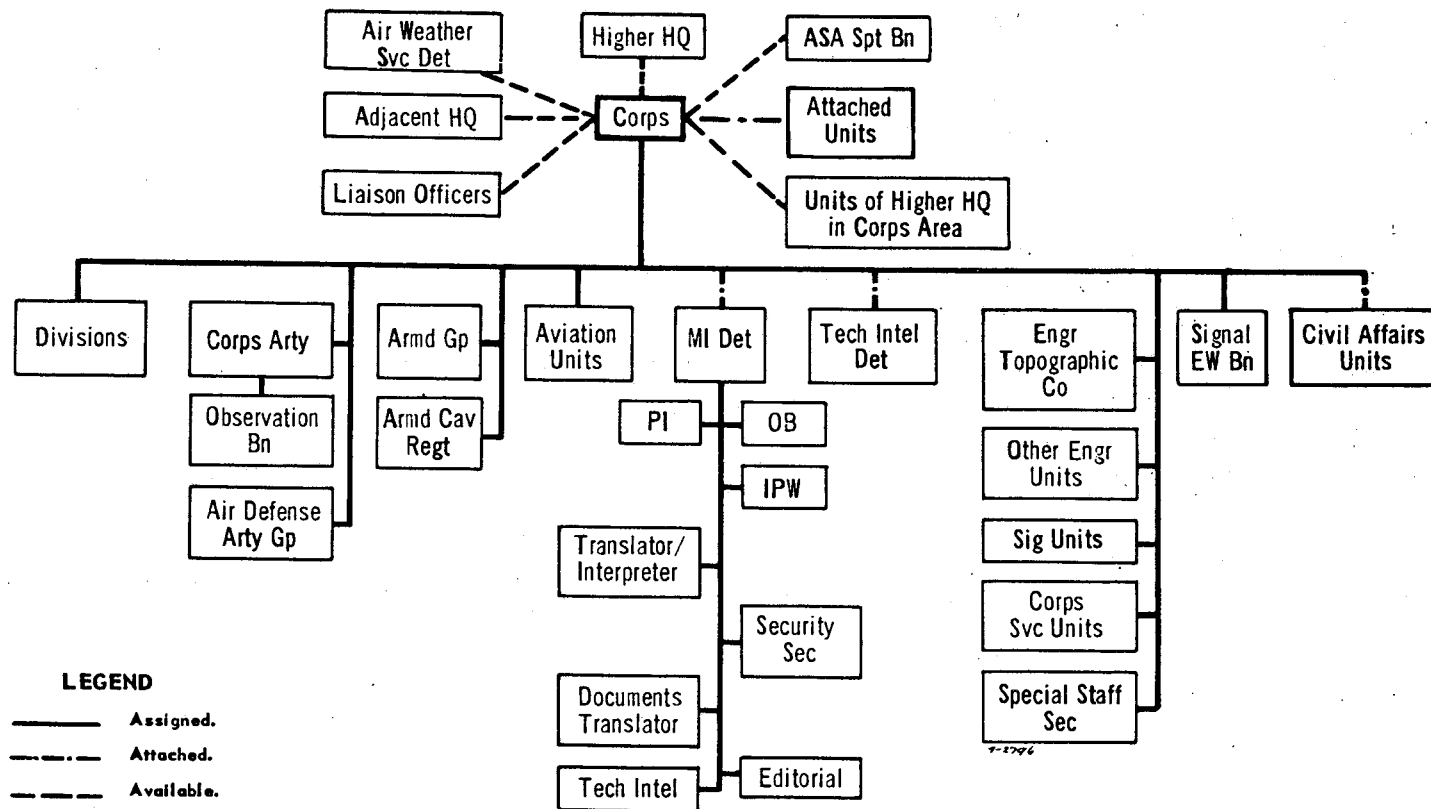


Figure 2. Corps intelligence agencies.

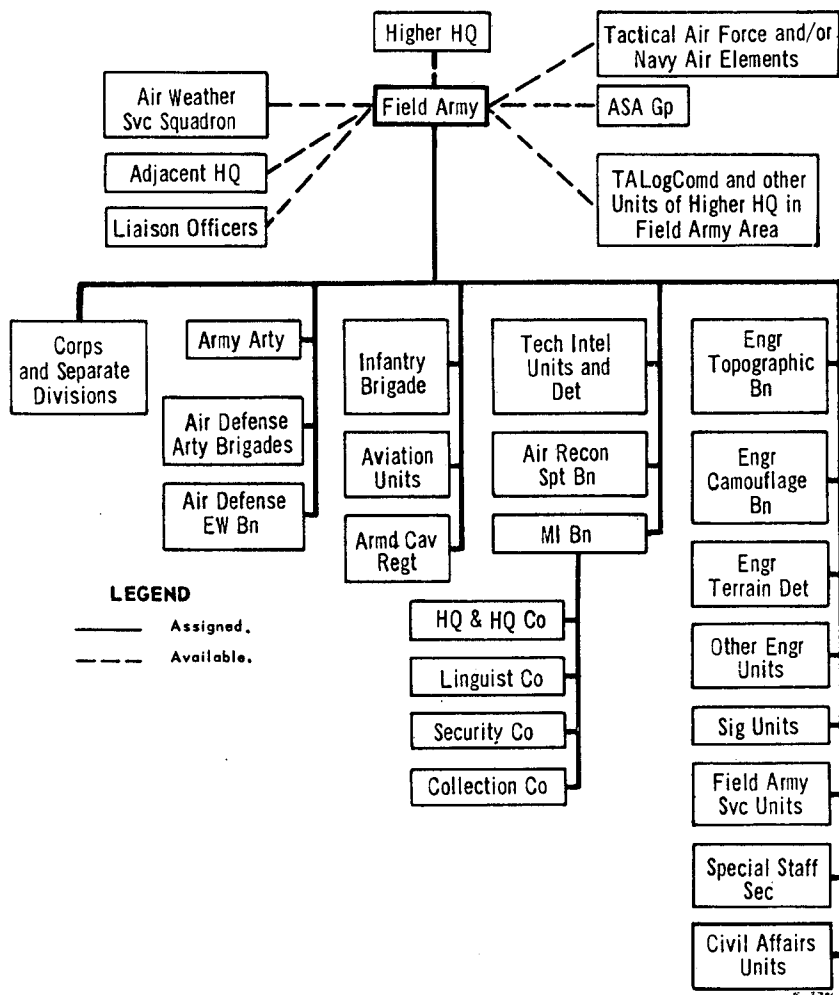


Figure 3. Field army intelligence agencies.

55. Army Group

The agencies normally available at the army group are—

- Subordinate forces.
- Army group special staff.
- Adjacent army groups.
- Tactical air force.
- Theater task forces.
- Theater Army logistical command, theater Army replacement and training command, theater Army civil affairs command, and theater Army air defense command.
- Theater Army, theater Navy, and theater Air Force.

56. Communications Zone

Agencies available to major Army commands located within the communications zone are shown in figures 4, 5, 6, and 7.

57. Theater Army

The agencies available at theater Army vary with the organization of the theater and generally include—

- Subordinate army commands.
- Theater Army special staff sections.
- Army Security Agency units.

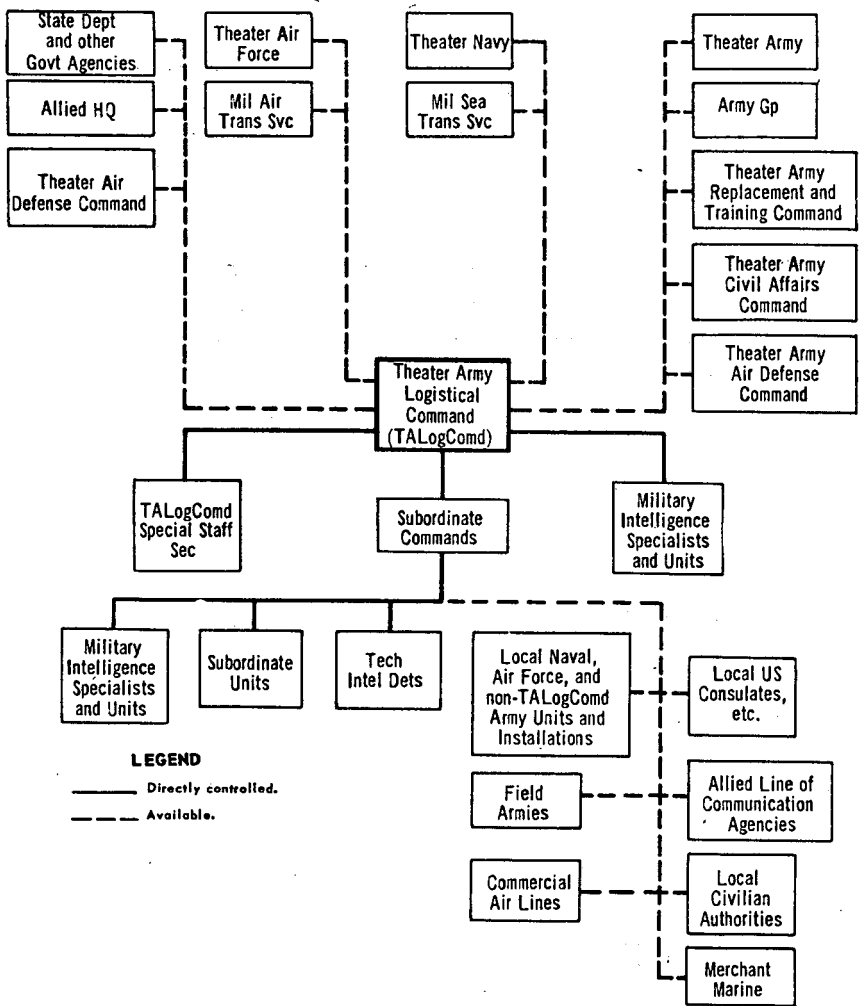


Figure 4. Intelligence agencies available to theater Army logistical command.

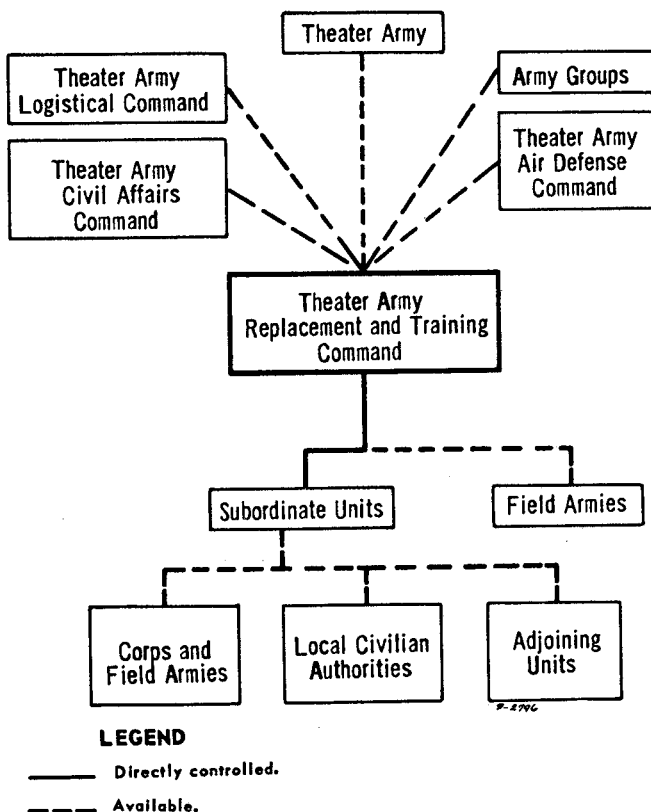


Figure 5. Intelligence agencies available to theater Army replacement and training command.

- d. Army special forces elements.
- e. Clandestine units.
- f. Military intelligence units.
- g. Agencies organized primarily for production of strategic intelligence, but which also develop combat intelligence and information. Such agencies may include interrogation centers, enemy documents centers, and materiel centers.
- h. Comparable headquarters of other services, Allied forces, and joint commands subordinate to theater headquarters.
- i. Higher headquarters.

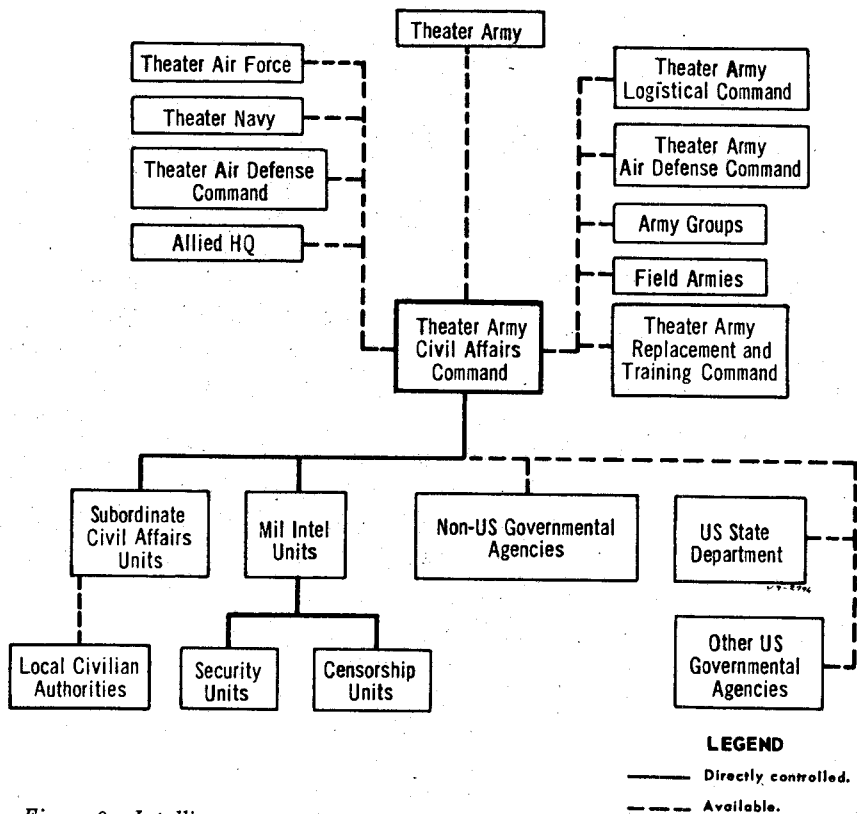


Figure 6. Intelligence agencies available to theater Army civil affairs command.

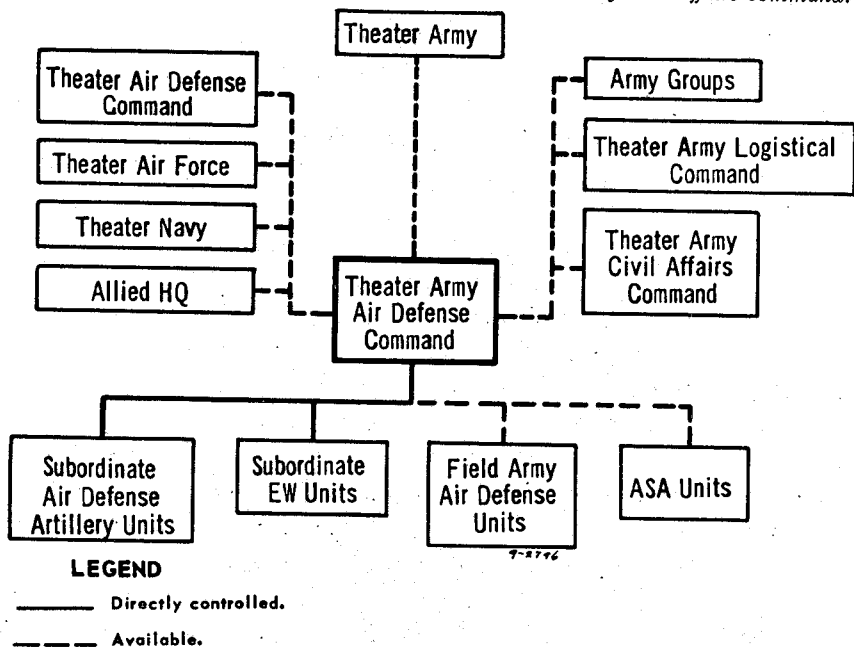


Figure 7. Intelligence agencies available to theater Army air defense command.

Section V. RECONNAISSANCE AND COUNTERRECONNAISSANCE

58. General

a. All units have reconnaissance and counterreconnaissance responsibilities. Reconnaissance and counterreconnaissance cannot be readily separated. Effective reconnaissance helps insure security. Counterreconnaissance activities also provide reconnaissance information. Forces executing reconnaissance missions may be employed simultaneously on counterreconnaissance. However, the order to the force must state which mission has priority. In forces of sufficient size, a part of the force may be assigned each task.

b. Reconnaissance is a mission undertaken to obtain, through observation, information about the activities and resources of an enemy or potential enemy, and data concerning the physical characteristics of a particular area. Observation includes use of sensory devices. Reconnaissance does not include espionage. Reconnaissance missions will, at times, require combat operations.

c. Counterreconnaissance operations are measures taken to prevent or reduce the effectiveness of hostile observation of a force, area, or place. Counterreconnaissance is supplemented by counterintelligence measures. Counterreconnaissance becomes more difficult as dispersion of units increases.

59. Reconnaissance in Force

A reconnaissance in force is a limited objective operation by a considerable force to discover and test the enemy's dispositions and strength, or to develop other intelligence. A reconnaissance in force is usually planned and executed as a limited objective attack. Even when used primarily to gather information, the commander executing a reconnaissance in force is alert to seize any opportunity to exploit tactical success. If the enemy situation must be developed along a broad front, a reconnaissance in force may be conducted using strong probing actions to determine the enemy situation at selected points. The size of the force used is of such strength to cause the enemy to react sufficiently to disclose his location, dispositions, and strength. Since a reconnaissance in force is used where the character of opposition is unknown, a balanced force of infantry and armor, with artillery, air, and engineer support, is employed. Reconnaissance in force operations may result in unacceptable losses, disclose the commander's ultimate intentions, or may provoke an unwanted general engagement. When the enemy possesses appropriate nuclear delivery means, the risk in presenting a profitable target may outweigh the value of the information desired.

60. Reconnaissance by Fire

This is a method of reconnaissance in which fire is placed on a suspected enemy position to destroy camouflage or to cause the enemy to react by either movement or return of the fire. The enemy reaction permits observation of his locations, dispositions, and strength.

61. Control of Reconnaissance Activities

The intelligence officer plans and coordinates reconnaissance activities, except for reconnaissance in force and reconnaissance by fire operations. The operations officer plans reconnaissance in force and reconnaissance by fire operations. The intelligence officer participates in the planning to insure that the operation is designed to result in the collection of the required information. He consults with the operations officer on the availability of troops and with the entire staff to insure coordination of reconnaissance activities with other activities. Reconnaissance activities of subordinate units are coordinated to avoid undesirable duplication of effort and conflicts between friendly elements. Generally, night reconnaissance patrols require the highest degree of coordination and control.

62. Planning Reconnaissance Activities

a. Reconnaissance plans are completed in time to give the executing units enough time to make their own preparations, conduct the reconnaissance, and report the results by the time specified. Adjacent and supporting units concerned are informed of reconnaissance plans to insure coordination. Where appropriate, plans include provisions for interrogating participating personnel after the reconnaissance has been completed.

b. Only missions within their capabilities are assigned to reconnaissance agencies. Missions are specific. Broad generalizations such as "report strength and disposition of the enemy" are avoided. The specific *time* that the information is desired or the latest time that the information will be of value is included in the order or request. More than one mission may be assigned to one agency at a given time. In such cases, definite priorities are stated. Priorities of missions are based on the importance of the information requested and the time it is desired.

63. Ground Reconnaissance

a. Ground reconnaissance agencies consist of personnel manning ground observation posts and/or surveillance devices, elements of all arms, and units especially organized or designated to perform ground reconnaissance. Infantry, armor, and engineer elements are suited for patrolling. Armored cavalry reconnaissance units are suited for reconnaissance deep in enemy areas. The depth in enemy-held areas at which reconnaissance patrols may operate is increased by the use of helicopters and other transportation means to deliver and retrieve patrols. The

ability of ground patrols to produce timely information depends in part on their mobility and communications for transmitting information and receiving new instructions.

b. Among the ground units specifically organized for reconnaissance are—

- (1) Reconnaissance platoon in battle groups.
- (2) Scout platoon in each tank and armored infantry battalion.
- (3) Armored cavalry squadron in the armored and infantry division and the reconnaissance troop in the airborne division.
- (4) Armored cavalry regiment in the type corps and type field army.

64. Principles of Conducting Reconnaissance by Patrolling

The reconnaissance techniques used by the combat arms are described in branch field manuals. The principles for reconnaissance patrolling are to—

a. *Gain contact as soon as possible and maintain it continuously.* Ground reconnaissance elements gain and maintain observation of the enemy and, by working continuously to the front, flank, and to the rear, determine the location, identification, dispositions, and strength of the enemy force, and the approach of enemy reinforcements. Army aviation is used to assist ground reconnaissance.

b. *Maneuver freely in conformity with operations.* Patrols and reconnaissance units maneuver freely and keep pace with the activity of the enemy. Reconnaissance units orient on the enemy and not on other friendly elements. Reconnaissance of those portions of the assigned area, in addition to canalized routes, such as roads, valleys, and ridge lines, will result in procurement of maximum information.

c. *Fight only when necessary to gain information.* Reconnaissance is conducted preferably by stealth and observation of the enemy without his knowledge. Combat is resorted to only when necessary to prevent destruction or capture, when prisoners are desired, or when the mission requires combat to obtain the desired information. Reconnaissance forces are provided with the means to accomplish their mission by close combat if necessary.

d. *Report all items of information as soon as possible even if negative or seemingly unimportant.* All information is reported as soon as possible. Much information has importance that is not obvious at the time of its collection. Negative information shows where the enemy is *not* going, or where he is *not*, at a given time.

65. Counterreconnaissance Against Enemy Patrolling

a. The principles for counterreconnaissance operations are as follows:

- (1) Operations are adjusted to and oriented on the friendly forces being screened.

(2) Enemy reconnaissance elements are destroyed or neutralized by combat.

(3) Screening forces are echeloned in depth for mutual support and to limit penetrations by enemy reconnaissance elements.

b. The counterreconnaissance screen prevents enemy reconnaissance forces from entering certain areas or places. It may be established behind natural obstacles which limit avenues of approach and canalize the enemy reconnaissance effort. It may meet enemy reconnaissance forces and destroy them by offensive combat. A counterreconnaissance screen may be moving or stationary depending upon the activities of the force being screened.

66. Air Reconnaissance

Air reconnaissance, using any type of air vehicle, is an effective and generally reliable means for penetrating deep into enemy territory and rapidly securing information on terrain and enemy activities over large areas. It is frequently executed in conjunction with ground reconnaissance of enemy forward areas. Air reconnaissance includes aerial surveillance. Air reconnaissance is useful in selecting routes for ground reconnaissance agencies and in locating enemy forces which slow or endanger long-range patrols or armored reconnaissance elements. Air reconnaissance also is used for confirming and obtaining additional information of activities and installations detected by ground surveillance. Air reconnaissance is limited by adverse weather conditions and effective enemy air defense measures. Air reconnaissance includes visual, photographic, electronic, weather, radar, infrared, and other sensory means of observation. Appendix V discusses procedures in requesting air reconnaissance.

67. Electronic Air Reconnaissance

a. Electronic air reconnaissance missions locate enemy electromagnetic radiation devices. The information is used by appropriate agencies to determine the enemy electronic order of battle for planning effective countermeasures, locating areas requiring additional reconnaissance by appropriate means, and targets for attack.

b. Typical objectives of electronic air reconnaissance include radar (gun-laying, early warning, and ground control intercept (GCI)), navigation systems, control systems for missiles and drones, communications systems, and electronic countermeasure facilities.

c. Electronic air reconnaissance is performed by organic aircraft and by supporting services' reconnaissance aircraft. Electronic air reconnaissance missions are requested in the same manner as other forms of aerial reconnaissance (app. V).

68. Visual Air Reconnaissance

a. Visual air reconnaissance is the gathering of information by visual observation from aircraft. Current information of enemy activity can be obtained rapidly by this means. Visual observation reports may be augmented by the use of voice recording and camera equipment to increase accuracy and detail. Visual reconnaissance permits the rapid reporting of information of fleeting targets to friendly units capable of attacking those targets.

b. The quality and quantity of information collected by visual air reconnaissance is restricted by weather, enemy countermeasures, camouflage, concealment, and limitations on the visual acuity of pilots or observers. Under the best light and visibility conditions, at 6,000 to 8,000 feet, movement on roads can be seen at a distance of 5 miles on each side of the flight path. Reported locations may be inaccurate because of difficulty in keeping the aircraft properly oriented.

c. Aircraft crews conducting other air operations also obtain information by visual reconnaissance. Where possible, *all* air crews operating within the field army area should be briefed and debriefed by G2 air personnel.

d. Visual reconnaissance missions include the following:

- (1) *Area search* is used to observe areas. The size of the individual area is determined by such factors as the nature of the terrain, the intensity of search desired, and the number of reconnaissance aircraft available. This type of reconnaissance is suited to sparsely populated or open country. Depending upon the capability of aircraft used, type of terrain, and information sought, search areas vary in size up to 2,000 square miles. Area search is conducted at specified intervals for a specified period of time.
- (2) *Specific search* is used to observe a limited number of points for specific information. It is suited to close terrain or densely populated areas and may be used to supplement area search missions. Normally, it is not flown on a regular schedule, as is area search.
- (3) *Route reconnaissance* is observation along lines of communication such as roads, railroads, and waterways, to determine condition of the route of enemy activity. It is carried out on a point-to-point or town-to-town basis over main transportation routes and may pass through several search areas. Route reconnaissance supplements area search.
- (4) *Artillery adjustment* is the correcting of long-range artillery fire and naval gunfire. It is normally performed by Army aircraft for artillery fire. Supporting services may perform adjust-

ment on targets beyond the range of observation of Army aircraft. Air crews performing artillery adjustment missions are given information to assist in locating and identifying the target.

69. Airphoto Reconnaissance

a. Airphotos are a major source of information on terrain, enemy dispositions, installations, and activities. Aerial photography is the fastest means for obtaining detailed terrain information of large areas. Study of air photos of the same area taken over a period of time (repetitive cover) permits analyzing enemy activity in detail. Detailed photointerpretation, including comparative study, produces large quantities of accurate, detailed information. Air photos overcome many of the limitations on quality and quantity of information of visual reconnaissance. The photo interpreter is less deceived by enemy camouflage than is the visual observer. The major disadvantage of photo reconnaissance, as compared with visual reconnaissance, is the time lapse between the exposure of the film and the dissemination of information derived from the photos. Time is required for processing the film, interpreting the prints, and disseminating the information. The general types of aerial photographic coverage are shown in figure 8.

b. The amount of information obtained from aerial photographs depends upon time available for study, interpreter skill, the scale of the photography, the amount of resolution degradation due to stabilization errors, processing techniques employed, and quality of exposed film resulting from aperture setting, shutter speed, and light at the time of exposure.

c. The scale of aerial photography is generally expressed as large, medium, or small. The requesting agency indicates the approximate scale classification desired and the specific information required. G2 air personnel determine the exact scale needed to satisfy the requirement. Figure 9 tabulates the normal minimum scales for identifying and interpreting various targets. Variables in atmospheric conditions and film processing may require alteration of these scales.

d. Units requesting photo reconnaissance are not responsible for flight planning or flight lines. Such data is often specified by the G2 air. However, better coverage from supporting services and Army aviation is secured by understanding the basic principles of planning photo reconnaissance missions. Since the intelligence requirements frequently permit considerable latitude in size, shape, and scale, additional or better coverage can be provided with the same effort by proper planning. Airphoto mission request procedures are discussed in appendix V.

Photo coverage	Major uses	Types of photos	Area of coverage	Frequency	Distribution
Basic cover.	General intelligence requirements, such as basic information on terrain, routes of communication, and enemy activities. Planning operations. Mapping.	Usually vertical stereo pairs.	Projected areas of operations.	As necessary to show seasonal changes.	Normally requested by field army which makes automatic initial distribution to subordinate units according to areas of interest. Supplementary issues are made as the campaign progresses. See FM 101-10 for typical allowances.
Tactical cover.	Conduct of current tactical operations. Target acquisition.	Usually vertical stereo pairs.	Unit area of influence and specified portions of the unit area of interest.	As required by the tactical situation, terrain characteristics, and other variables. At times, daily coverage of only portions of the battle area is required. In moving situations, only coverage of specified areas and immediate objectives may be required.	Normally requested by divisions and higher headquarters. See FM 101-10 for typical allowances.
Special cover.	Study of specific targets or objectives for information for immediate requirements and for specific planning.	As required.	As required.	As required.	As required.
Mapping cover.	Preparation and revision of maps.	Usually small scale vertical stereo pairs.*	As required.	As required.	Normally requested by corps and higher headquarters and distributed to topographic units.

* Often supplemented with large scale photos of culturally developed areas.

Figure 8. Types of aerial photographic coverage.

Subject	Breakdown	Minimum scale for detail interpretation	Minimum scale for identification
Electronics.....	Radar.....	1:5,000.....	1:10,000
	Communications.....	1:5,000.....	1:15,000
	Directional finders.....	1:5,000.....	1:15,000
	Low obliques.		
Guns.....	Field artillery.....	1:5,000.....	1:20,000
	Heavy antiaircraft.....	1:5,000.....	1:20,000
	Light antiaircraft.....	1:5,000.....	1:10,000
	(MGs and auto AAA)		
Missile sites.....	Surface to air.....	1:5,000.....	1:10,000
	Surface to surface.....	1:5,000.....	1:10,000
Minor defenses..	Strong points.....	1:5,000.....	1:10,000
	Underwater and beach obstacles.	1:2,000.....	1:10,000
	Low obliques.		
	Barbed wire.....	1:5,000.....	1:10,000
	Low obliques.		
	Trenches.....	1:10,000.....	1:15,000
Searchlights.....	Pillboxes.....	1:5,000.....	1:10,000
	Low obliques.		
		1:5,000.....	1:15,000
		1:10,000.....	1:30,000
Dumps.....	Transportation..	1:10,000.....	1:20,000
	Differentiate types of railway cars.		
	Differentiate motor transports from armored vehicles.	1:5,000.....	1:10,000
	Identify armored vehicles.	1:5,000.....	1:10,000
Vegetation.....	Low obliques.		
	Type of vegetation.....		1:20,000
Terrain.....	Type of beach.....	1:10,000	
	Terrain behind beach....	1:15,000	
	Type of roads.....	1:5,000	
	Airfields.....	1:5,000.....	1:20,000
Airfields.....	Aircraft.....	1:5,000.....	1:20,000
	Differentiate between aircraft.	1:5,000.....	1:10,000

Note. Identification of camouflaged or concealed installations ordinarily requires scales larger than those given above. In such cases low oblique photography is recommended.

Figure 9. Reference scale for photointerpretation.

70. Night Air Reconnaissance

Night air reconnaissance normally uses supplementary aids for navigation and artificial illumination for photographic exposure. Night reconnaissance is used for the same purposes as day air reconnaissance. Information of enemy activity usually unobtainable at any other time can be gained by night air reconnaissance.

71. Weather Reconnaissance

a. Weather reconnaissance, by air, ground, or sea, obtains weather data on areas for use in preparing weather analyses and forecasts. The two general classes of weather reconnaissance missions are—

- (1) Scheduled, which make weather observations (to include atmospheric soundings) at predetermined locations and at scheduled times.
- (2) Unscheduled, which investigate doubtful weather conditions which may affect the battle area.

b. Air weather reconnaissance missions are flown to obtain special reports of weather conditions for ground operations and along the routes and in the vicinity of objective areas in operations dependent on the use of aircraft. These reports are frequently required to permit immediate decisions such as diversion, change of flight track, and cancellation of missions.

72. Use of Radar and Infrared Devices in Air Reconnaissance

a. Portrayal methods used by radar and infrared devices include scope presentation for instantaneous viewing, photographic recording for retention and detailed study, and transmission to a ground station. Airborne radar and infrared sensory devices are particularly valuable during periods of poor visibility.

b. Airborne radar, in drones or manned aircraft, is valuable as a moving target indicator. Information obtained by this means must be supplemented by other means, such as visual observation and photography, which can better determine the nature of the activity detected by the radar. Airborne radar can cover large areas quickly. Side-looking airborne radars can operate from behind the forward edge of friendly dispositions. Airborne radar is dependent upon line of sight and the use of ground-based tracking and plotting systems to locate the detected activities. Radar devices are subject to enemy electronic countermeasures.

c. Airborne passive infrared and thermal detection devices are valuable in penetrating camouflage and collecting information at night. As with airborne radar, the information obtained by these devices must be correlated by other means, such as visual observation and photography which can better determine the nature of the detected activity. Airborne passive infrared and thermal detection devices can cover large areas quickly but are currently limited to line of sight coverage and the use of ground-based tracking and plotting systems to locate the detected activities. Passive infrared and thermal detection devices are invulnerable to countermeasures but are susceptible to enemy deception measures. The effectiveness of these devices is reduced by fog, clouds, and precipitation.

73. Army Aviation

a. Army observation aircraft perform day and night visual, photo, radar, infrared, and radiological survey missions. Drones can perform photographic, radar, and infrared surveillance missions. The depth into the enemy area to which Army aviation can penetrate depends on the characteristics of available aircraft and the enemy air defenses. Army aerial reconnaissance missions provide information faster than air reconnaissance missions performed by supporting services. Requests for Army aerial reconnaissance missions by units or agencies not having aviation in direct support, or beyond the capabilities of direct support aviation, are coordinated by the G2 air (app. V).

b. Army observation aircraft radio communications permit—

- (1) Immediate transmission of information to battle groups, combat commands, and separate battalions and to division, corps, or field army headquarters.
- (2) In-flight diversion of aircraft to higher priority missions, and request for and adjustment of artillery fires.
- (3) Direction of close offensive air support.
- (4) Use as a radio relay station for ground reconnaissance elements.

74. Supporting Services

a. Tactical reconnaissance wings of a tactical air force (TAF) of the Air Force normally support Army operations. Air reconnaissance wings support the field army from dispersed airfields. The reconnaissance wings include both reconnaissance-fighter type and reconnaissance-bomber type aircraft. Reconnaissance-bomber type aircraft normally provide night photographic, radar photographic, weather, and limited visual reconnaissance information. Information on significant sightings made during all reconnaissance missions is transmitted in flight over the TAF tactical air observation net which is monitored by the spot report receivers at Army units and the Air Force sector control centers (SCC). TAF high performance reconnaissance aircraft, with fighter cover when required, perform air reconnaissance missions over the forward areas as well as at great distances beyond the forward edge of the battle area, as required.

b. Naval and Marine air may provide reconnaissance support of all types for Army units.

- (1) Navy and Marine carrier-based air reconnaissance support is normal in amphibious operations and the Navy/Marine Corps system for requesting and coordinating air reconnaissance requests is used.
- (2) In all other types of operations, Navy and Marine air reconnaissance support may be used when aircraft carriers or other

air facilities are within range. Usually, Navy and Marine air reconnaissance activities are coordinated by the tactical air force and normal Army-Air Force request and coordinating procedures are used. In some cases, Navy and Marine air units may provide direct support to Army units and special procedures are established.

- (3) Because of limited photo reproduction facilities on aircraft carriers, Army air photo reproduction elements may be required with naval air reconnaissance units. Air photos may be delivered to Army units by Navy, Marine, and/or Army couriers. Army photo interpreters and liaison officers are normally located with supporting Navy or Marine air reconnaissance units.

CHAPTER 3

PROCESSING OF INFORMATION

Section I. INTRODUCTION

75. General

Processing is the step in the intelligence cycle whereby information becomes intelligence. Processing consists of three operations: *recording*, *evaluation*, and *interpretation*. Information is processed in accordance with its importance. Information of the area of influence is usually processed before information of the area of interest.

76. Recording

Recording is reducing information to writing or some form of graphical representation and the *grouping together* of related items. Recording makes subsequent interpretation easier, more accurate, and facilitates preparation of intelligence reports by having together all available information on a specific subject in a convenient form. It also makes access to information easier for personnel of the intelligence section. At headquarters above division, recording is of increased importance and complexity. The means used for recording must be adequate to handle the volume of information and intelligence received and to serve the needs of those who must have access to the information and intelligence.

77. Evaluation

Evaluation is a critical appraisal of information as a basis for its subsequent interpretation. Evaluation includes determining the pertinence of the information, the reliability of the source and agency through which the information was derived, and its accuracy.

78. Interpretation

Interpretation determines the significance of the information with respect to what is already known and it draws conclusions as to the probable *meaning* of evaluated information. It is the result of critical judgment involving *analysis* (taking apart), *integration* (putting together), and forming *conclusions*.

79. Processing Procedure

a. Information is processed without waiting to collect additional information. Intelligence derived from incomplete information may be

essential. There is always a timelag between the buildup of a target and the time the information is available. Complete information of the target may not be available until after the target has started to dissipate. As time is available, a search is directed for additional information to complete, confirm, or refute the intelligence developed from incomplete information.

b. The sequence in processing depends on the nature and urgency of the information. Usually, recording is first. For urgent items, recording may occur simultaneously with evaluation and interpretation, or even later. Information which is not pertinent is not processed. Information needed immediately by higher, lower, or adjacent units is disseminated immediately. Information not of immediate concern, but of possible present or future value, is completely processed, usually before dissemination.

c. Evaluation and interpretation may be instantaneous and be followed by immediate dissemination. For example, a report from a reliable source, believed to be true, may state that the enemy is about to launch a major attack. The intelligence report that an immediate attack is imminent is disseminated at once. Recording proceeds to the extent that it does not interfere with dissemination of high priority intelligence, but is of secondary importance in this case.

d. Information is sometimes relayed to a higher echelon before any processing. For example, to speed up production of intelligence related to nuclear targets, a commander may order that all information concerning *specified* enemy units, areas, or activities be reported without processing at any lower headquarters.

e. Figure 10 shows the flow of processing at a division, corps, or field army headquarters having a tactical operations center.

80. Processing and the Intelligence Estimate

The estimate is continuously revised and kept up to date in the light of new intelligence. As each new item of information is processed, the interpretation placed upon it affects the current intelligence estimate. Previous conclusions may be altered or confirmed; new capabilities may be determined and old ones discarded; the relative probability of adoption of the enemy's courses of action should become clearer.

Section II. RECORDING

81. General

Means and techniques of recording should permit timely dissemination of information and intelligence. Means and techniques are con-

stantly reviewed to reduce personnel and time requirements for recording. Common aids currently used in recording are—

- a. G2 journal.
- b. Enemy situation map.
- c. G2 worksheet.
- d. Intelligence files.

82. G2 Journal

The G2 journal is a chronological log of intelligence activities during a stated period, usually 24 hours. It is an index of reports and messages that have been received and transmitted and of important events which have occurred. The G2 journal is a permanent and official record. See FM 101-5.

83. Enemy Situation Map

An enemy situation map is a temporary graphic record which shows current dispositions and major activities of the enemy. Friendly information on this map is usually limited to boundaries; location of command posts of higher, lower, adjacent units; reconnaissance units; and the forward edge of the battle area. Different categories of data may be shown in detail on separate overlays. For example, one overlay may show fortifications, another potential nuclear targets, and still another details of order of battle. In plotting enemy activities and dispositions, the latest time the activity was observed or the disposition was confirmed should be indicated.

84. G2 Worksheet

a. The G2 worksheet (fig. 11) aids in the sorting, evaluation, and interpretation of information and in the preparation of intelligence reports. It is not a permanent record and is not disseminated. The worksheet is kept current and obsolete entries are deleted. Specialized worksheets are usually maintained by each branch of the intelligence section at field army and higher headquarters.

b. There is no prescribed form for the worksheet. At division, index tabs are usually labeled to correspond to the headings and numbers of paragraphs of the intelligence summary (ISUM) (app. VI). At corps and higher headquarters, index tabs are usually labeled to correspond to the headings of the periodic intelligence report (PERINTREP) (app. VI).

c. Information from incoming messages and reports is entered in the worksheet under appropriate headings. For example, at division, information on the identification of a new infantry unit would be recorded under "New Identifications" as well as "Infantry" (fig. 11). A message which furnishes information on different subjects results in several

The diagram illustrates the layout of a typical division G2 worksheet. It consists of several overlapping sheets. The top sheet is labeled "G2 WORKSHEET" and "Headquarters _____ Div". It has a "(Classification)" label at the top left and bottom left. The bottom right corner of this sheet is marked "7-2796". To the right of the main worksheet is a vertical column of boxes, each representing a different category of information. These categories are: Armor, Infantry, Artillery, Air, Other forces, Potential nuclear targets, Nuclear activity, Other activity, Personnel losses, Equipment losses, Obstacles and barriers, Administrative activities, New identifications, Enemy movements (units), Vehicular movements, Weather and terrain conditions, Counterintelligence, and Morale and combat efficiency.

Figure 11. Typical division G2 worksheet.

entries, none of which usually quote the entire message. For example, a message containing information on the locations of a reserve unit and on a committed artillery unit results in extracts under "Reserves and Reinforcements" and under "Artillery." Each entry in the worksheet based on an incoming message includes reference to the G2 journal serial number of that message. For example: "J2, 091200 April, from 20th Eng Cmbt Bn: Bridge at LINDEN (2146) destroyed by bombing. Estimated out of action for 30 hours." "J2" refers to the journal serial number. The date-time group entered refers to the time of occurrence of the event.

85. Intelligence Files

An intelligence section maintains files necessary to permit ready access to all available information. The files most commonly maintained are described below.

a. The *journal file* contains a copy or record of each message or document entered in the G2 journal. It supports the journal.

b. The *information or reference file* is a cross-index file of all information of possible future value. Much information is collected which has no immediate interest, but which may be of future value. Because of the large volume of information filed at field army and higher headquarters, devices such as punch cards and electronic sorting machines are used where possible.

c. Order of battle files are described in detail in FM 30-19. Other specialized intelligence files are described in field manuals of the 30-series.

Section III. EVALUATION

86. Pertinence

The examination of information for pertinence specifically determines—

a. Whether the information pertains to the enemy or the characteristics of the area of operations.

b. Whether the information is needed immediately, and if so, by whom.

c. Whether the information is of possible present or future value, and if so, to whom.

87. Reliability

The source of the information and the agencies by which it was collected is evaluated to determine reliability. The principal basis for determining the reliability of a source and a collecting agency is previous experience. Experience with a particular enemy may indicate that prisoners of war are generally either reliable or unreliable sources. Members of some enemy units or nationalities may have proved to be more reliable sources than members of other units or nationalities. Knowledge of the training, experience, and past performance of troop units indicates the reliability of those units as collecting agencies. An additional test of source and agency reliability is "Under the conditions existing at the time, could this information have been obtained?"

88. Accuracy

a. Accuracy means the probable truth of the information. Judgment of accuracy is based on the answers to the following questions:

- (1) Is the reported fact or event at all possible?
- (2) Is the report consistent within itself?
- (3) Is the report confirmed or corroborated by information from different sources or agencies?
- (4) Does the report agree or disagree in any way with other available information, particularly with information known to be true?
- (5) If the report does not agree with information from other sources or agencies, which is more likely to be true?

b. The most reliable method of judging accuracy is by comparison with other information. The intelligence officer, where possible, obtains the same information through different agencies and from many sources.

c. Marked differences in the estimation of the *accuracy* of information may occur between division and higher echelons. For example, the army G2 with more sources of information and intelligence has greater opportunity to confirm, corroborate, or refute. Regardless of the source, the accuracy of incoming information and intelligence is re-evaluated at each echelon.

89. Evaluation Rating

a. The evaluation of each item of information is indicated by a standard system. The evaluation of *reliability* is shown by a letter and the evaluation of *accuracy* by a numeral. Evaluation ratings are made at the lowest headquarters possible. If information is incomplete, a partial evaluation rating may be given. The agency closest to a source of information is ordinarily the best judge of the reliability of that source. Consequently, higher headquarters normally accepts the *reliability* rating assigned by lower headquarters, judging only the reliability of the reporting headquarters.

b. Evaluation of the reliability of source and agency is shown as follows:

- A..... Completely reliable.
- B..... Usually reliable.
- C..... Fairly reliable.
- D..... Not usually reliable.
- E..... Unreliable.
- F..... Reliability cannot be judged.

An A evaluation of *source* is assigned under only the most unusual circumstances, for example, when the source has long experience and extensive background with the type of information reported. A rating

of B indicates a source of known integrity. An F rating is assigned when there is no adequate basis for estimating the reliability of the source. Agencies are ordinarily rated A, B, or C. However, when the source of an item and the collecting-reporting agency are evaluated differently, only the *lower* degree of reliability is indicated.

c. Evaluation of the *accuracy* of an item of information is indicated as follows:

- 1.....Confirmed (by other sources or agencies).
- 2.....Probably true.
- 3.....Possibly true.
- 4.....Doubtfully true.
- 5.....Improbable (probably untrue).
- 6.....Truth cannot be judged.

d. Although both letters and figures are used to indicate the evaluation placed on an item of information, the letters and figures are independent of each other. A completely reliable source may report information which is, on the basis of other information, judged to be improbable. In such case, the evaluation of the information is A-5. A source known to be unreliable may report information which is confirmed by other sources and is of undoubted accuracy. In such case a report is evaluated E-1. A report evaluated as F-6 may be accurate and should not be arbitrarily discarded.

e. In reporting to higher, lower, and adjacent units, the evaluation follows each item of information. For example, "The division artillery of the Aggressor 42d Tk Div can fire nuclear rounds of 0.5 KT yield (C-3) ***."

Section IV. INTERPRETATION

90. Analysis

a. Analysis is the sifting and sorting of evaluated information to isolate those elements which have significance in respect to the mission and operations of the command. Analysis requires good judgment and a thorough knowledge of the principles of military operations, the characteristics of the area of operations, and the enemy situation to include enemy doctrine and past practices.

b. Analysis, at headquarters above division, often involves detailed research. Analysis increases in difficulty as the volume of information increases. When the volume of information is great and many individuals are involved, they must all clearly understand the mission of the command.

91. Integration

a. Integration is the combination of the elements isolated in analysis, and other known information, to form a logical picture, or hypothesis,

of the enemy activities or the influence of the characteristics of the area of operations on the mission of the command. The development of hypotheses requires judgment and the same background knowledge used in analysis. The intelligence officer does not form hypotheses based on what he would do if he were the enemy commander.

b. All hypotheses are analyzed and tested. Analysis of a hypothesis includes determining indications that should exist if the hypothesis is valid. Testing includes verifying the existence or nonexistence of these indications within the limitations of the available time and means. In formulating hypotheses, preconceived opinions are avoided. One way to do this is to formulate and test more than one hypothesis.

c. Depending on the nature of the problem, integration may be a mental process, completed in a few moments. Integration also may be lengthy and involve the collection of a large volume of additional information.

92. Conclusions

The last step in processing is forming conclusions from the hypothesis developed, tested, and considered valid as a result of integration. The conclusions answer the question, "What does this information mean in relation to the enemy situation and the area of operations?"

93. Illustrative Problem

a. *Information.* The intelligence officers of two battle groups of a division have reported their units are receiving a large volume of mixed cannon fire including high bursts of very heavy cannon. Exact heights of burst unknown (A-1).

b. *Analysis.*

- (1) Very heavy cannon fires with high bursts.
- (2) High burst of very heavy cannons mixed in with large volume of other cannon fire.
- (3) High burst registration on two battle groups.

c. *Integration.*

- (1) *Other known facts.*
 - (a) This is the first report in 3 weeks of enemy use of very heavy cannon.
 - (b) In the past, the enemy always used a high burst registration before firing a nuclear weapon by very heavy cannon.
 - (c) In the past, the enemy has seldom shifted his fires after high burst registration.
 - (d) The enemy has used toxic chemicals in the same areas where he has used nuclear weapons.

- (2) *First hypothesis.* Aggressor is preparing to fire one or more nuclear weapons by very heavy cannon accompanied by a toxic chemical attack probably within the division sector. He also may be registering away from the ground zero of his target. The high burst fire of very heavy cannon artillery is consistent with his previous practices and is logical. The large volume of other cannon fires is logical as a means of masking the high burst fires.
- (3) *Second hypothesis.* Aggressor is practicing deception and is trying to lead us to believe he will fire a nuclear weapon. Aggressor has not in the past used this type of deception measure. This does not mean he will never use it.

d. Conclusion. Aggressor is preparing to fire one or more nuclear weapons by very heavy cannon, accompanied by a toxic chemical attack probably within the division sector. The risk is too great to support the deception hypothesis but the deception possibility should be pointed out to the commander and a search should be made for other evidence to prove or disprove it.

CHAPTER 4

DISSEMINATION AND USE OF INTELLIGENCE AND INFORMATION

Section I. GENERAL

94. Dissemination Considerations

Intelligence and information are used as a basis for decisions, estimates, and plans by the commander, the staff, and the commanders and staffs of higher, subordinate, and adjacent units. Intelligence and information must reach the users in time to be of use and in a form which facilitates usage. The means and methods selected for dissemination depend on the detail, pertinence, urgency of the information and intelligence, and its intended use. Consideration is given to the needs of the user, his resources to handle the disseminated material, and capabilities of available communications.

95. Dissemination Means

a. Dissemination to higher, lower, and adjacent units is made by as-required reports and studies, recurring reports and studies, operational plans and orders, maps, and special reports. Dissemination within a headquarters is usually made by oral spot reports, briefings, and by distribution of written reports sent to and received from other headquarters.

b. As-required reports and studies include spot reports, summaries of weather and climate, climate studies, photo interpretation reports, prisoner of war interrogation and translator reports, technical intelligence bulletins and summaries, order of battle books and handbooks, radiological contamination estimates and reports, and the analysis of the area of operations. The analysis of the area of operations is discussed in paragraphs 97 and 98. Appendix VI gives details of the other as-required reports listed above.

c. Recurring reports and studies include weather forecasts, current weather reports, the intelligence summary (ISUM), periodic intelligence reports (PERINTREP), and the intelligence estimate. The intelligence estimate is discussed in paragraphs 99 through 101. Appendix VI gives details of the other recurrent reports and studies.

d. Operational plans and orders for dissemination of intelligence and information are discussed in appendix VI.

e. Distribution of maps is discussed in appendix VI.

f. Special reports are used for disseminating information and intelligence not readily included in the above reports or studies, or of a voluminous or specialized nature. There is no prescribed form for special reports.

g. Supplementary intelligence reports (SUPINTREP) review enemy defenses, organizations, strengths, etc., in relation to a particular operation. Such reports do not have a standard form and are made only when called for by the commander.

96. Use

a. Intelligence and information are used in arriving at decisions. Where adequate intelligence is available the quality of the decision is improved. Adequate intelligence and information permit a commander to carry out his mission efficiently and to accomplish more than would otherwise be possible. The status of intelligence of the enemy is considered in arriving at decisions and planning operations. Generally, intelligence of an area provides a firm basis for decisions and plans while intelligence of the enemy is uncertain to a varying degree. Intelligence of the enemy is used, as available, to assist in selecting a course of action.

b. The intelligence officer produces and disseminates intelligence and information. He also advises on the use of intelligence. Some intelligence dissemination, such as the intelligence estimate and the analysis of the area of operations, incorporates use of intelligence to assist in the preparation of the commander's estimate and those of other staff officers.

Section II. THE ANALYSIS OF THE AREA OF OPERATIONS

97. General

a. The analysis of the area of operations shows the effects of the characteristics of the area on the general courses of action that the enemy and friendly forces may adopt. The analysis is a basis for development of specific friendly courses of action and enemy capabilities (courses of action) in the operations estimate, the intelligence estimate, and other staff estimates. The analysis is oriented on the mission of the command within limiting considerations such as operational environment, time, and boundaries.

b. A written analysis is normally prepared at corps and higher headquarters in planning projected operations. At division level and for current operations, the abbreviated content of the analysis is in paragraph 2 of the intelligence estimate. A written analysis of the area of operations is usually prepared at division level only for operations to be carried out at great distances, such as amphibious or long-range airborne or air-mobile operations.

c. An analysis of the area of operations is prepared before the mission is received if a logical mission is assumed based on the known situation. Analyses based on assumed missions are re-evaluated on receipt of the actual mission. Analyses usually require revision in the light of the commander's decision, by the uncovering of new areas, and by receipt of additional or more accurate information.

d. An explanatory form of an analysis of the area of operations and an example are given in FM 101-5. Appendix VIII provides additional guidance and an annotated example. Appendix IX discusses the influence of weather on Army operations. Appendix X discusses the influence of weather and terrain on nuclear weapons effects.

98. Sources

a. Analyses of the area of operations and studies prepared by higher headquarters are valuable source materials in the preparation of an analysis of the area of operations. The conclusions of analyses prepared by higher headquarters are usually not directly applicable to a subordinate unit. Considerations that are important to the higher commander's mission are not necessarily applicable at the subordinate headquarters. Other sources include technical reports, maps and photos, and reports of ground and air reconnaissance.

b. Other staff officers assist in the preparation of the analysis by furnishing specialized information.

- (1) At all levels of command; the staff engineer produces and distributes terrain studies including soil analyses and interpretation of terrain characteristics as they influence factors, such as obstacles, routes, avenues of approach, cover and concealment, and trafficability.
- (2) At field army and at comparable and higher headquarters, the preparation of intelligence studies of manmade features of the area of operations is the responsibility of the technical service staff officer concerned with such features. For example, the transportation officer prepares studies of the operational characteristics of transportation facilities in the area of operations. However, the engineer prepares studies of the engineering characteristics of the routes of communication.

Section III. THE INTELLIGENCE ESTIMATE

99. Introduction

The intelligence estimate is a study of the area of operations and the enemy situation. It determines their influence on friendly courses of action, courses of action which the enemy can adopt and is most likely

to adopt, and the enemy vulnerabilities that may influence the selection of a friendly course of action. An explanatory form and completed examples are contained in FM 101-5. This form, with minor modification, is applicable for oral or written estimates at all echelons. Appendix XI provides additional guidance and an annotated example.

100. Frequency of Preparation

An intelligence estimate is kept current. It reflects all the available information and intelligence. The intelligence estimate is presented by the intelligence officer as required by the commander, or when changes in the estimate occur that must be brought to the attention of the commander or other members of the staff.

101. Form of Presentation

a. The intelligence estimate usually is presented orally. A written intelligence estimate is prepared for projected operations when time is available, when dissemination is required and oral presentation is not feasible, and when a historical record is desired. Oral and written presentations are brief, consistent with adequacy of detail.

b. In oral presentations, maximum use is made of graphic aids such as terrain models, colored maps and overlays, charts, and graphs. Information and intelligence that is common knowledge or readily apparent from the graphic aids is not repeated. At appropriate points in the presentation, mention is made of no change from the information or intelligence previously furnished.

CHAPTER 5

PLANNING THE COLLECTION EFFORT AND ORDERS

Section I. INTRODUCTION

102. General

a. Intelligence is a basic requirement in operational planning. The effectiveness of the accomplishment of the mission is related directly to the availability of intelligence. Intelligence needs must be forecast, therefore, in sufficient time to allow the planning of collection operations.

b. Planning the collection of information also is based on the fact that implementation of courses of action requires activities which have distinctive characteristics such as movement of units, construction of bridges, and establishment of command posts and administrative support installations. These characteristic activities may indicate the existence of targets and vulnerabilities associated with specific courses of action. The probable enemy course of action can be predicted and the existence of probable targets and vulnerabilities established by examination of enemy activities in the light of experience, his doctrine and his capabilities.

103. Sequence of Intelligence Planning

The first problem in collecting information is determining the intelligence required for decisions and plans. The second is determining the priority in which different intelligence items are required. The third is balancing requirements with capabilities to arrive at allocation of the available collection effort. Collection agencies are then selected and appropriate orders prepared and dispatched. Execution of the orders is supervised to insure that the required information is obtained in time to be of use.

104. Intelligence Requirements

Depending on the mission, the commander and his staff require intelligence and information—

a. To arrive at timely decisions in preparing plans and estimates for future operations and in conducting current operations concerning—

- (1) Development of scheme of maneuver.
- (2) Selection of targets for available weapons.
- (3) Damage assessment.

- b. To protect the command by—
 - (1) Avoiding surprise.
 - (2) Denying the enemy information of our forces.
- c. To assist in the processing of other information.

105. Information Requirements

a. *Complete* information of the enemy and the area of operations rarely can be obtained. *Adequate* information *must* be obtained to permit determining the influence of the characteristics of the area on both friendly and enemy courses of action; the existence, identification (nature), and locations of targets; and enemy capabilities, vulnerabilities, and probable course of action. This information is obtained from studies or from direct observation of the characteristics of the area of operations and the disposition of enemy units and objects in the area of operations and the activities associated with the enemy units and objects. Information of the nonphysical characteristics of the area usually is obtained by analyses of data accumulated over a period of time.

b. To arrive at conclusions concerning the above, an intelligence officer must know the following about enemy units, objects, and their activities.

- (1) Existence.
- (2) Nature.
- (3) Size.
- (4) Location.
- (5) Activity; kind, direction, rate.

c. The frequency, detail, speed, accuracy, and coverage with which the above information is required depends on the echelon of command and the type of operation in progress or planned. For example, in order to fire on targets, greater accuracy of location is required than for other types of combat operations. Appendix XII lists typical objects and activities on which intelligence information can be obtained by direct observation, and the areas of influence in which they are found.

106. Indications

a. An indication is any positive or negative evidence of enemy activity or any characteristic of the area of operations, which points toward enemy vulnerabilities or the adoption or rejection by the enemy of a particular capability, or which may influence the selection of a course of action.

b. Indications include conditions and circumstances which result from previous actions or from enemy failure to take action. For example,

current enemy dispositions may indicate the adoption of a particular enemy capability or existence of an enemy vulnerability. Similarly, the enemy logistical situation may favor the adoption of a particular enemy capability or may influence our selection of a course of action by indicating an enemy vulnerability. The destruction of large enemy forces by nuclear attack may result in a vulnerability which favors our resumption of the offensive. Destruction of river-crossing means in one area by friendly forces may lead to the enemy's crossing elsewhere. The presence of obstacles in a specific area may influence the adoption or rejection of a course of action by either force.

c. For general intelligence and target selection purposes, numerous observation reports on enemy personnel, objects, and activities in the battle area usually are required. It usually is not possible to obtain by direct observation the *complete* information listed in paragraph 105b, except for items such as nuclear explosions, weapons firing, and contaminated areas. For example, it usually is impossible to determine by observation the existence, nature, and location of an enemy command post. In order to detect, locate, and determine the nature of command posts, deductions must be made from the analysis of numerous observations of detectable items such as personnel and vehicular movements, electromagnetic radiations (light, heat, radio, and radar), road networks, and breaches of camouflage discipline. Similarly it usually is impossible by direct observation, to detect, locate, and determine the nature of targets suitable for attack by area destruction weapons. This usually requires deductions from the analysis of numerous observations of personnel and vehicular movements, weapons firing, and evidences of construction.

d. The classes of items which can be detected, identified (nature determined), and located by observation are shown in figure 24. At each echelon of command plans for search for these classes of items consider the factors below as applicable to the particular echelon.

- (1) Coverage: the extent of the area to be covered.
- (2) Detail: the scope and type of information required at each command echelon. For example, the field army is primarily concerned with personnel in division size units, but the information usually is obtained from details of battalion size or possibly smaller groups.
- (3) Frequency: the number of times the various areas are searched during a given period of time. Searches preferably are made on a random rather than a fixed schedule. Within the frequency prescribed for a given area, certain parts of the area may be covered more often.

- (4) Speed: the time interval from detection to transmittal of the information to the headquarters that can act upon the information.
- (5) Accuracy: general location is the upper limit of the accuracy which is acceptable for intelligence purposes and still provides useful information for the commander and staff. Spot location is the desired accuracy useful in target analysis for selection of weapons. Spot location may require a separate effort independent of, and after, obtaining a general location.

e. In addition, information not obtainable by observation also is required to varying degrees by different headquarters. This information is usually of nonphysical characteristics of the area of operations such as politics, sociology, economics, and psychology. Appendix XIII describes the information needed at different headquarters.

107. Weather Requirements

a. To fulfill intelligence requirements, all commanders require information of weather and the intelligence derived from that information. The collection of weather information is based on the need for the information, its intended use, and the particular weather effects important to the command and the enemy. The weather information procured is restated in terms of these requirements. Appendix XIV lists the usual weather requirements within the theater Army in terms of the various forecasts, studies, and summaries.

b. There are two types of weather requirements: requirements established by the Army and passed to the Air Weather Service for action; and those established by the Air Weather Service and passed to the Army for action. The establishment, coordination, and consolidation of Army weather requirements and the supervision of fulfilling Air Weather Service requirements passed to the Army are intelligence responsibilities. At division and higher headquarters, this coordination is effected through the Air Force weather officer at these headquarters. Below division, weather service requirements are transmitted through intelligence channels.

Section II. TARGET ACQUISITION

108. General

a. Target acquisition is that part of intelligence activities which involves detection, identification, and location of ground targets for the purpose of target analysis, target evaluation, and effective employment of weapons. Target acquisition results from applying information collected from all sources and agencies to a special purpose. The difference between target acquisition and other types of information gathering is one of degree, rather than kind.

b. Detection determines the existence of presence of the target. Identification determines the nature, composition, and size of the target. Location consists of the three-dimensional positioning of the target from a known point or weapon. Location, for target acquisition purposes, requires more accuracy than for general intelligence purposes.

109. Target Acquisition Planning

a. Early in the planning stage of an operation, a list of potential targets suitable for nuclear attack is developed. Such factors as the mission, information of the enemy, characteristics of the area of operations, and enemy tactics and practices are studied to select areas in which targets are probable. The collection effort insures a systematic day and night all-weather surveillance over the entire battle area to detect indications of the existence of potential targets. Areas of particular importance to operational plans are subjected to more intensive surveillance than other areas. The collection effort is then directed toward securing information to verify, identify, locate accurately, or to disprove the presence of suspected targets. This is accomplished by assigning suitable collection tasks to collection agencies. Expanded depths and frontages will require intensive intelligence targeting to fix targets and target areas for aggressive intelligence exploitation.

b. The collection worksheet, observation plans, air reconnaissance plans, and patrol plans are used to assist in coordinating the target acquisition effort. To insure timeliness in target acquisition for employment of nuclear weapons, subordinate commands may be required to report information directly to the intelligence element of the tactical operations center of the higher headquarters. This direct reporting is limited to specified items of information.

110. Requirements for Dissemination

Frequently potential targets, particularly those suitable for attack by nuclear weapons, are determined by the analysis and integration of apparently unrelated items of information and intelligence. Items of information and intelligence used for target acquisition also are used for determination of enemy capabilities and vulnerabilities. It is often impossible to determine whether a single item of information or intelligence is applicable to target acquisition exclusively. Surveillance reports are integrated with all available information to provide the composite information required for target analysis and target evaluation. Pertinent information from all sources is disseminated to the appropriate fire support and fire support coordination agencies in time for their use in target analysis.

Section III. COMBAT SURVEILLANCE

111. General

Combat surveillance is a continuous (all-weather, day-and-night) systematic watch over the battle area to provide timely information for tactical ground operations. It involves the systematic *observation* of air, surface, or subsurface areas of the battle area by visual electronic, photographic, or other means for combat intelligence purposes. Surveillance information is processed along with the information collected from all sources and agencies to produce intelligence.

112. Planning Considerations

a. All surveillance means are integrated to provide a complete coverage, primarily of the commander's area of influence. Surveillance means, such as photography, other sensory devices, reconnaissance patrols, and forward observers, are parts of the information collection effort.

b. In assigning orders and requests for specific information, the capabilities of the surveillance means available to collection agencies are considered in the same manner as the capabilities of other collection means. When the desired use of subordinate unit collection means is incompatible with the assigned mission of the unit to which the means belong, then the lowest subordinate headquarters controlling the means may be placed under the higher commander's control. For example, if the mission assigned to a division armored cavalry squadron does not permit using certain of the squadron's ground radars as desired by the division, then the particular radar unit may be placed temporarily under division control.

c. Plans are made for inspections, reports, maintenance of patrol, reconnaissance, and surveillance plans, and surveillance capability overlays, to permit adequate control, coordination, and supervision of combat activities. Unless these plans are made, supervision of the surveillance aspects of the collection effort is handicapped and collection of necessary information may be delayed. For example, without planning for submission of surveillance plans and overlays by subordinate units, gaps in the surveillance coverage of the division area may not be detected in time for necessary corrective action.

113. Use of Army Aviation and Supporting Services Air Elements

a. In planning collection tasks for air reconnaissance means, the capabilities and limitations of the available aircraft are considered. With the present limitations of Army aircraft (including drones), the Air Force and Navy must be relied on heavily for air reconnaissance which cannot be accomplished by Army aviation, for example, missions

well forward of the area of contact. The Air Force furnishes the bulk of the deep air reconnaissance support required by the Army.

b. Despite the current limitations of aircraft, Army aviation is one of the most effective means available for the collection of information. The capabilities of Army aviation are used to the maximum for air reconnaissance.

c. The use and effectiveness of air reconnaissance depend in part on conditions such as weather, enemy air defenses, and available aircraft. Where possible, plans are made for the collection of information by other means should air reconnaissance suddenly not be available or effective.

Section IV. INTELLIGENCE PRIORITIES

114. General

Intelligence priorities are required to plan the collection effort. The collection resources of a command are directed toward definite intelligence objectives in the priority of their need. The collection capabilities of a command are rarely sufficient to collect all the desired information simultaneously.

115. Essential Elements of Information (EEI)

a. The unobtained items of information or intelligence needed by the commander, *at a particular time*, in making a decision with an acceptable degree of confidence are the essential elements of information (EEI). EEI are items of intelligence or information of the characteristics of the area of operations and the enemy without which the commander cannot reasonably arrive at a sound decision at a particular phase of the operation. EEI vary with the phase of the operation. For example, in the planning phase of an airborne operation, an EEI might be, "What drop or landing zones exist in our objective area? Special attention to ***." During the execution phase of the same operation an EEI might be, "What targets suitable for nuclear attack will develop in the zone of the main attack? Special attention to ***."

b. The number of EEI depends on the extent and accuracy of the available information and intelligence. Some operations may have as few as one or two; others will require more. At times, the information and intelligence available may be complete enough to permit the commander to make a reasonable decision with adequate confidence. In such cases, the commander has no outstanding priorities in his intelligence needs. However, at *no time* is the available information or intelligence so complete that *additional* requirements for intelligence or information do not exist.

c. The EEI are the highest priority intelligence tasks. After the allocation of means to collect information required to satisfy the EEI,

the remaining means are used for the collection of information to produce intelligence of the *other* enemy capabilities, vulnerabilities, and characteristics of the area that also could affect materially the successful accomplishment of the mission. In addition, such information of the enemy and the area must be collected for the primary purpose of aiding the interpretation of the results of the collection effort. The EEI and other intelligence requirements constitute the total intelligence required by the commander and form the basis for the collection plan. Appendix XV covers the development, form and content, and dissemination of EEI and other intelligence requirements.

Section V. ANALYSIS OF EEI AND OTHER INTELLIGENCE REQUIREMENTS

116. General

EEI and other intelligence requirements are analyzed to determine the indications which point toward the enemy's adoption or rejection of a particular capability, or affirmation or denial of a given effect of the characteristics of the area of operations, or the existence or nonexistence of an enemy vulnerability. The analysis is focused on the critical factors of the EEI and other intelligence requirements. Among the critical factors are our own dispositions. For example, the echelonment of our reserves toward the north may induce an enemy attack on the south. The indications resulting from the analysis are the basis for orders and requests for specific information.

117. Determination of Indications

a. Indications are determined by analyzing EEI and other intelligence requirements to determine what conditions and activities can be expected to exist if the enemy prepares to adopt, or adopts, a particular capability or when a particular enemy vulnerability exists or develops, or when certain effects of the characteristics of the area are present. For example, an EEI or other intelligence requirement which asks in part, "Will the enemy attack?" is analyzed by determining the indications of an attack which *may* exist during the preparation or launching of an attack. Such attack indications include forward movement of enemy units, forward displacement of artillery, command posts and logistical installations, and strengthening of counterreconnaissance screens. Another intelligence requirement pertaining to enemy morale is similarly analyzed. For example, a marked increase in enemy desertions may be an indication of lowering enemy morale.

b. The analysis of EEI and other intelligence requirements requires a thorough knowledge of the enemy and the effects of the characteristics of the area of operations. Particularly valuable is detailed knowledge of the enemy organization, equipment, tactical doctrine, and logistical methods;

the probable enemy knowledge of the area under friendly control; and the personalities of the opposing enemy commanders and the past performance of the opposing enemy units.

c. At every headquarters, lists of enemy activities peculiar to each indication are compiled. The lists are disseminated to higher, lower, and adjacent units. For training exercises, FM 30-102 lists activities pertaining to operations of the maneuver enemy—Aggressor.

118. Orders and Requests for Specific Information

a. Orders and requests for specific information are based on indications. Collection agencies are directed or requested to supply the information which will confirm or deny the indications. Collection agencies are not given the responsibility for determining that particular indications exist. For example, if location of hostile artillery in depth is a defense indication, collection agencies are not ordered to "Report whether or not hostile artillery is located in depth." Instead, they are ordered to "Report locations of hostile artillery in your zone." Determination of whether the indication has been substantiated is based on the information furnished. Orders and requests for information deal with a specific enemy activity, location, or characteristic, or a specific terrain or weather condition. These orders and requests are specific as to the information desired and where it may be found. For example, forward movement of hostile troops is frequently an indication of reinforcement. Analysis of the road nets, communications centers, and locations of enemy forces, integrated with knowledge of the enemy's tactical doctrine, indicates what routes the enemy most probably will use and where the effort of available agencies should be concentrated. A proper order to collection agencies is "Report volume, type, and direction of traffic on the following roads: ***."

b. Orders and requests on indications of enemy vulnerabilities are formulated in the same manner. For example, it may have been determined that enemy troop units of battalion size are suitable nuclear targets. The discovery of a unit of battalion size is an indication that a nuclear target may exist. The specific information desired with respect to this battalion then includes its location, composition, concentration, vulnerability, recuperability, size, and shape. Orders and requests to collection agencies seek these and other specific items of information.

c. Orders and requests for specific information frequently deal with specific characteristics of the area of operations. For example, an intelligence requirement may ask, "What obstacles exist in our zone?" Streams across the axis of advance, located by map study, are indications that natural obstacles may exist. The extent to which a located stream actually is an obstacle becomes the subject for orders and requests for specific information. Accordingly, the order or request to a collection

agency may state, "Report width, depth, velocity, and condition of banks and bottom of JON River between WALIS and HERMANN."

d. Collection agencies do not restrict their efforts to items specifically mentioned in orders and reports from higher headquarters. All pertinent information obtained by collection agencies is reported, even if not specifically requested.

119. Selection of Collection Agencies

a. *General.* After determination of the specific information required, collection agencies are selected to obtain the information. In making this selection, the factors of *capability*, *suitability*, *multiplicity*, and *balance* are considered.

b. *Capability.* Collection agencies must be physically capable of proving the desired information. An armor unit in reserve is not asked for identifications of units in contact, nor is artillery asked for information which can be obtained only from prisoners of war.

c. *Suitability.* The collection missions assigned to units must be compatible with their missions. Only the agencies best suited to furnish the desired information are used. For example, information most readily obtained by dismounted patrolling should be obtained by infantry units rather than armor units. Economy of personnel and materiel also is considered. Dismounted patrols are not used for collecting information which can be obtained equally well by available air reconnaissance. Patrols are used only when they are the agency best suited to collect the required information.

d. *Multiplicity.* Evaluation of information requires comparison with information received from other sources and agencies. Consequently, subject to considerations of capability and suitability, more than one agency is used to obtain each item of required information.

e. *Balance.* Within the limits imposed by other considerations, the collection workload is balanced among agencies. The requirement for balance is a minor consideration compared with the other factors.

Section VI. THE COLLECTION WORKSHEET

120. General

a. A written collection worksheet is an essential aid in the planning and supervision of collection activities. It assists in coordinating and integrating the efforts of collection agencies, and in keeping all elements of the intelligence section informed of collection activities directed by the headquarters. The collection worksheet is supplemented, as required, by other worksheets and plans such as air and ground reconnaissance plans, and observation plans.

b. The collection worksheet covers an entire operation. Since planning the collection effort is continuous, an entirely new collection worksheet rarely is prepared except when a unit first enters combat. The collection worksheet is continually revised as required. In effect, it is a form of blackboard with new entries added as necessary and obsolete entries removed.

121. Contents of the Collection Worksheet

a. A collection worksheet provides for the following:

- (1) Listing of the EEI and other intelligence requirements, usually stated in question form.
- (2) The indications which best answer the EEI and other intelligence requirements.
- (3) The specific information sought in connection with each indication.
- (4) The agencies to be used to obtain the required information.
- (5) The place and time the information is to be reported, if not specified in the unit SOP.
- (6) A column to indicate the progress of the collection effort and notes for future action.

b. Figure 12 shows a form for a collection worksheet. Appendix XVI covers the preparation of the collection worksheet and contains an example of a partially completed collection worksheet.

UNIT:

Period covered: From: _____ To: _____

(1) <i>Essential elements of information and other required intelligence items</i>	(2) <i>Indications (analysis of items in column (1))</i>	(3) <i>Basis for specific orders or requests</i>	(4) <i>Agencies to be used</i>						(5) <i>Place and time at which information is to be reported</i>	(6) <i>Remarks</i>
			<i>List all available</i>	<i>agencies to be</i>	<i>used in the</i>	<i>collection of</i>	<i>required informa-</i>	<i>tion.</i>		
List the EEI announced for the operation or period, and other required intelligence items, spaced sufficiently to permit entry in column (2) of all indications pertinent to each item.	List opposite each item in column (1) those indications which best provide an answer to the question asked or implied by each item.	List the specific information sought in connection with each indication.	Place an X under each agency that has or can get the information bearing on each indication. The agency (or agencies) finally selected to obtain the information is indicated by circling (X) except for SOP items for agencies under the control of the unit.						Place: Headquarters or staff section to which information is to be reported if other than the issuing headquarters. Time may be a specific time, periodically, or as the information is obtained.	Notes for future actions and to indicate progress of the collection effort.

16-7352

Figure 12. A collection worksheet form.

CHAPTER 6

COUNTERINTELLIGENCE

Section I. INTRODUCTION

122. General

Counterintelligence denies information to the enemy, increases the security of the command, and aids in achieving surprise. Surprise depends not only on reliable intelligence and rapidity of movement, but also on efficient counterintelligence. By denying information to the enemy, the risks of a command are reduced by decreasing the enemy's ability to use his combat power effectively. Counterintelligence includes detection of disaffection within our own forces and prevention of sabotage and subversion. Counterintelligence is an essential part of cover and deception operations.

123. Counterintelligence Measures

a. Passive counterintelligence measures conceal information from the enemy. They include measures such as secrecy discipline, security of classified documents and materiel, communications and electronic security, movement control, censorship, camouflage, the use of concealment, and electronic counter-countermeasures. Passive counterintelligence measures generally are readily standardized in the unit SOP regardless of the specific nature of the unit mission.

b. Active counterintelligence measures actively block the enemy's attempts to gain information or to engage in sabotage or subversion. They include counterreconnaissance, counterespionage, countersabotage, countersubversion, and the use of smoke to deny enemy observation. Active counterintelligence measures vary with the mission of the unit.

124. Counterintelligence Operations

a. Counterintelligence operations are classified generally as operations pertaining to military security; civil security; port, frontier, and travel security; censorship, and special operations.

b. Military security counterintelligence operations include all the activities of a command to protect itself from sabotage and subversion and to deny information to the enemy. These include both active and passive measures. In tactical units, these operations focus on protecting

nuclear delivery means and associated installations and neutralizing the enemy target acquisition effort. Typical military security counterintelligence measures are the use of passwords; limiting certain means of communication and other electromagnetic emitters; restricting movements of elements of our forces; limiting access to sensitive installations; and counterreconnaissance.

c. *Civil security* counterintelligence operations include all the counterintelligence activities affecting the civilian population of the area. These operations are extensive for commands with large territorial responsibilities in heavily populated areas and in situations short of war. Typical civil security counterintelligence measures are control of circulation, censorship, security screening of civilian labor, monitoring of suspect political groups, and industrial plant protection.

d. *Port, frontier, and travel* counterintelligence operations consist of the special application of military and civil counterintelligence measures to the counterintelligence control of airports, seaports, land and sea frontiers, international air boundaries, and all nonmilitary travel into and out of a theater of operations. Typical of such operations are military travel permit systems, sea and land frontier patrols, and security screening and control of frontaliars (legal daily frontier crossers).

e. *Censorship* is control over communications, such as correspondence, telephones, news dispatches, motion pictures, and radio and television broadcasts, to prevent information of military value from reaching the enemy. It is accomplished by monitoring and examining all communications, other than official matters.

f. *Special operations* include the specialized employment of active and deceptive counterintelligence techniques and procedures in the conduct of secret operations against hostile and unfriendly intelligence organizations and activities. Examples of these operations are compilation and dissemination of counterintelligence target data and operation of special interrogation centers for processing captured enemy agents.

125. Counterintelligence Agencies

a. The individual soldier is the ultimate counterintelligence agency. Most military security counterintelligence operations depend on his ability to carry out proper security, camouflage, observation, and reporting procedures. Since prisoners of war are sources of intelligence, all personnel are trained in evasion, escape, resistance to enemy interrogation, and adherence to the code of conduct. He is also a source of information concerning enemy intelligence activities including subversion.

b. The Counter Intelligence Corps (CIC) contains the Army's counterintelligence specialists. In the field army, counterintelligence specialists are assigned to the security company of the military intelli-

gence battalion and the security sections of corps and division military intelligence detachments. See FM 30-9.

c. All units are counterintelligence agencies and take appropriate counterintelligence measures to deny the enemy information of their activities, locations, and dispositions. Every staff officer and subordinate commander advises on counterintelligence aspects of his particular activity. For example, the transportation officer advises on the counterintelligence aspects of transportation movements and the surgeon advises on the counterintelligence aspects of the locations of medical installations. Some units, such as U. S. Army Security Agency units and censorship units, have specialized counterintelligence functions because of their assigned missions.

d. Other federal agencies, including the Federal Bureau of Investigation, the Office of Naval Intelligence, the Air Force Office of Special Investigations, and the Department of State, perform certain counterintelligence functions that assist Army counterintelligence operations.

Section II. COUNTERINTELLIGENCE PLANNING AND ORDERS

126. General

a. Counterintelligence planning is based on enemy capabilities to obtain information of friendly activities. Counterintelligence planning develops appropriate countermeasures to prevent the enemy from learning of those friendly dispositions and activities that disclose the intentions of the command or, the disruption of which, will imperil the accomplishment of the mission.

b. Planning the counterintelligence support of any operation is concurrent with the planning and conduct of the operation. It begins with the inception of the operation plan, and continues until the operation is completed. The procedures used in counterintelligence planning generally are similar to the planning of the collection effort described in chapter 5.

127. Counterintelligence Estimate

a. The counterintelligence estimate determines the enemy intelligence, sabotage, and subversive capabilities, and the relative probability of adoption of these capabilities as a basis for developing counterintelligence measures. The estimate considers the effects of the enemy's intelligence, sabotage, and subversive activities on the friendly courses of action including requirements for counterintelligence measures. The counterintelligence estimate is based on knowledge of the order of battle of the enemy units and agencies that collect intelligence information and conduct sabotage and subversive activities. Of specific interest are

UNIT:

Period covered: From _____ To: _____

(1) Phases or periods of operation	(2) Categories of counterintelligence operations involved	(3) Counterintelligence measures to be adopted	(4) Agencies responsible for execution of counterintelligence measures												(5) Instructions regarding entries in columns 3 and 4, notes for future action, and staff co- ordination measures.	

9-2796

Figure 13. Counterintelligence measures worksheet form.

organization, training, equipment, doctrine, techniques, and deployment of these units and agencies.

b. A written counterintelligence estimate usually is prepared only by field army and commands in the communications zone. With minor modifications, the intelligence estimate form is suitable for counterintelligence estimates. Usually, the counterintelligence estimate is prepared for the intelligence officer by the chief of the counterintelligence branch of the intelligence section. Appendix XVII shows a counterintelligence estimate form. A counterintelligence worksheet similar to the G2 worksheet usually is maintained at division and higher headquarters to assist in preparing counterintelligence estimates.

128. Counterintelligence Measures Worksheet

Based on the conclusion reached in the counterintelligence estimate, a counterintelligence measures worksheet is prepared or revised. This worksheet, similar to the intelligence collection worksheet, is an essential aid in counterintelligence planning and is the basis for preparing counterintelligence orders and requests. Figure 13 shows a counterintelligence measures worksheet form. Categories of counterintelligence operations involved (col. 2) are listed to insure completeness in planning. Appendix XVIII shows a partially completed counterintelligence measures worksheet.

129. Counterintelligence Orders and Requests

Counterintelligence orders and requests are prepared and transmitted in the same manner as orders and requests for specific information described in appendix XVI. Counterintelligence orders and requests are included in paragraph 4 of the intelligence annex, if published. See FM 101-5.

Section III. COUNTERINTELLIGENCE OPERATIONS

130. Division

a. Counterintelligence operations at division headquarters are generally concerned with enemy target acquisition activities. Of particular concern are military security measures for the protection of nuclear weapons systems. To the extent possible, division counterintelligence measures are reduced to SOPs.

b. Counterintelligence specialists are not organic to divisions. A security section, containing counterintelligence specialists, is organic to the military intelligence detachment which is normally attached to a division. The senior officer of the security section of the attached military intelligence detachment usually is designated the chief of the counterintelligence branch of the division G2 section. When circum-

stances such as situations short of war or occupation duties require extraordinary attention to civil security or other counterintelligence operations, the security section attached to the division may be augmented by higher headquarters. See FM 30-9.

131. Corps

a. Counterintelligence operations at corps generally are the same as at division except for the greater number of units and larger areas involved. In addition, corps counterintelligence operations are concerned with long range as well as current operations. Activities appropriate for supervision or performance by a corps counterintelligence branch and counterintelligence specialists include—

- (1) Military security measures for protecting nuclear delivery systems within the corps area.
- (2) Reduction of the effectiveness of enemy target acquisition activities.
- (3) Camouflage and concealment of nondivisional installations and units within the corps area.
- (4) Conduct of security checks in coordination with units marshalling refugees and other civilians arriving from areas under enemy control.
- (5) Measures to secure against sabotage those nonmilitary installations whose continued operation is required.
- (6) Checks of security measures within corps units and recommendations for corrective action.
- (7) Measures to prevent looting and destruction of enemy documents and enemy materiel of intelligence value.
- (8) Seizure and exploitation of counterintelligence targets affecting corps security.

b. The corps may be required to perform civil security, frontier and travel security, and censorship operations. These operations usually are directed toward providing security for corps tactical operations. When such operations are required, the corps is augmented with additional counterintelligence specialists or military intelligence units by higher headquarters.

c. Counterintelligence operations may be executed within the corps zone by counterintelligence specialists or units of higher headquarters. Such operations are coordinated by the field army.

132. Field Army

a. Field army counterintelligence operations are similar to those of corps and divisions. However, the operations are broader in scope because of the larger number of units and larger areas involved and long-

range planning. The territorial responsibilities of the field army usually result in more extensive counterintelligence operations pertaining to civil security and special operations than at lower units. Army counterintelligence operations pertaining to civil security are based on support of tactical operations and later transfer of territorial responsibility to the communications zone.

b. The field army frequently conducts counterintelligence operations within corps areas. Such activities are coordinated with the corps intelligence officer to avoid duplication of effort and conflict.

c. Theater and communications zone counterintelligence personnel and units may be temporarily attached to the field army to assist in counterintelligence operations and to provide continuity of control when the communications zone assumes field army territorial responsibilities.

133. Army Group

Army group has no territorial responsibilities and conducts only such counterintelligence *operations* as apply to army group headquarters. Counterintelligence operations in support of the army group cover and deception plans usually are assigned to subordinate units for execution. Counterintelligence plans of army group are usually general in nature and take the form of policy guidance to coordinate counterintelligence operations of subordinate units. Major emphasis is on security of military operations. This involves considering enemy activities which threaten military security and the necessary civil and military security countermeasures.

134. Logistical Commands

a. Counterintelligence is usually the major activity of the intelligence operations of logistical commands. Denying the enemy information of the supplies, service installations, nuclear weapons systems, and transportation and communication means, and their protection against sabotage, are vital to the accomplishment of the theater army logistical commands mission. The large territorial responsibilities of the theater army logistical command headquarters require extensive counterintelligence operations of all types. Although the scope and emphasis vary, counterintelligence procedures of logistical commands are similar to those at tactical headquarters.

b. Logistical command counterintelligence operations are relatively static. Counterintelligence units are normally assigned responsibility for an area, locality, or installation and remain there as long as required.

c. Counterintelligence operations for security of staging and marshalling areas located within the communications zone are carried out by logistical command counterintelligence personnel and units. Transient units being staged or marshalled are responsible only for local security and internal counterintelligence operations.

135. Theater Army

a. Theater Army usually delegates its territorial responsibilities to the field armies and to the theater Army logistical command headquarters. Theater Army performs counterintelligence operations, for security of the theater Army headquarters and for missions not suitable for assignment to subordinate commands. Counterintelligence activities are usually confined to coordinating and supervising operations of subordinate commands and the administrative control of counterintelligence specialist personnel assigned to the theater.

b. Theater Army counterintelligence operations are coordinated by—

- (1) Publishing policy statements and directives.
- (2) Planning and supervising the assumption of counterintelligence control of army rear areas by the communications zone. Coordination usually is direct between the armies and the advance section of the communications zone.
- (3) Supervising the activities of subordinate commands to insure complete counterintelligence coverage.
- (4) Planning the procurement of counterintelligence specialists.

136. Theater Army Civil Affairs Command

The theater Army civil affairs command headquarters is concerned with internal headquarters security and providing policies, guidance, and supervision for counterintelligence operations pertaining primarily to civil security and civil aspects of censorship and port, frontier, and travel security. Counterintelligence operations, within Army jurisdiction, usually are carried out by subordinate civil affairs units of the theater Army civil affairs command, field armies, and logistical commands. See FM 41-10.

137. Theater Army Replacement and Training Command

The theater Army replacement and training command headquarters is concerned with internal headquarters security and providing policies, guidance, and supervision for counterintelligence operations of its subordinate units. Counterintelligence operations within the theater Army replacement and training command are concerned primarily with internal security, counterintelligence training, and detection of sedition and disaffection.

138. Theater Army Air Defense Command

The theater Army air defense command headquarters is concerned with internal headquarters security and providing policies, guidance, and supervision for counterintelligence operations of its subordinate units. Counterintelligence operations within the theater Army air defense command are concerned primarily with military security with emphasis on protection of weapons and target acquisition means.

CHAPTER 7

INTELLIGENCE ASPECTS OF SPECIAL OPERATIONS

Section I. GENERAL

139. Introduction

Special operations fall into two general types. One type is concerned with special environmental conditions, such as extremes of weather and terrain. The second type involves either special operational methods such as airborne, and amphibious and air-mobile operations or operations for specialized purposes, such as cover and deception, psychological warfare, and guerrilla operations.

140. Use of Strategic Intelligence in Special Operations

Strategic intelligence is used extensively in planning special operations, particularly for operations to be conducted in a distant area. Strategic intelligence used for this purpose is checked and supplemented by current reconnaissance.

141. Intelligence Operations in Extremes of Weather and Terrain

Operations in extremes of weather and terrain require collection, before the start of the operation, of detailed information of the extreme characteristic concerned and the early determination of the effects on both friendly and enemy broad courses of action. Once in the area, extremes of weather and terrain generally impede collection and dissemination of information and intelligence. Preplanned measures are taken to reduce these limitations on intelligence operations. Specific intelligence requirements and problems posed by extremes of weather and terrain are discussed in FM 31-72 and FM 72-20 and certain field manuals of the 31-series.

142. Intelligence Support of Operations Involving Special Operational Methods

The intelligence operations described in the previous chapters are generally applicable to any military operation. Certain aspects of intelligence operations receive greater emphasis, depending on the limitations and requirements of the special operational methods used. For example, in air-mobile operations determination of air avenues of approach and

landing areas is a major requirement. In airborne operations the intelligence furnished initially to participating units is unusually extensive and detailed as the participating units do not have the background of details built up by continuous operations. Paragraphs 144 to 156 discuss intelligence operations in relation to selected special operations. Details of intelligence operations supporting specific special operations are covered in the applicable field manuals.

143. Psychological Warfare

a. Psychological warfare is the use of propaganda and other actions to influence the opinions, emotions, attitudes, and behavior of enemy, neutral, or friendly groups to support the accomplishment of national aims and objectives. This manual considers only psychological warfare at tactical levels.

b. Intelligence aspects of psychological warfare operations include determination of enemy vulnerabilities, enemy capabilities, characteristics of the area of operations, and the effectiveness of friendly and enemy psychological warfare operations. Intelligence on enemy military and civilian personalities and methods, derived from prisoners of war, refugees, and enemy news media, are invaluable in formulating psychological warfare plans and policies. Strategic intelligence studies, including the National Intelligence Survey (NIS), provide background information for psychological warfare planning and operations.

c. Intelligence in support of psychological warfare operations includes not only the facts, but also an analysis and evaluation as to the *why* and the specific *what* of enemy vulnerabilities to psychological warfare. For example, in seeking answers to a psychological warfare intelligence requirement based on the morale, discipline, and state of mind of the enemy, questions like the following are considered: "What are the enemy 'soft spots' or his 'sore spots'?" "What will adversely affect his morale or current state of mind?" "In what areas is the enemy most vulnerable to psychological attack?" "What does he like and dislike (such as music or news broadcasts)?" "What are his problems, his worries, his fears?" "Where is he from?" "What problems does he have in his home area?" "What are his living conditions, and the food and water situations?" "Why does he employ a certain unit for a mission when he has several identical units available or uncommitted?" and "Why does he fight or surrender?" In addition, intelligence on enemy capabilities for countering the friendly psychological warfare must be furnished.

Section II. UNCONVENTIONAL WARFARE

144. General

a. Unconventional warfare (UW) is a general term describing those operations conducted within the enemy's sphere of influence primarily

using indigenous personnel and resources in furtherance of military, political, or economic objectives. The major components are guerrilla warfare, psychological warfare as it pertains to all phases of unconventional warfare, sabotage, subversion and resistance against hostile states, and evasion and escape. Peacetime UW activities may be used to influence the minds of potential enemies and prepare them in advance for participation in subversive activities when hostilities begin. Intelligence support of subversion and sabotage against hostile states (resistance) is not covered in this manual.

b. Large-scale UW activities depend on both active and passive support of the indigenous population. Therefore, detailed intelligence of the political and economic factors which affect the local civil population is required. Support of certain political groups, or destruction of facilities and activities in the enemy rear area, can affect adversely the attitudes of the population and result in reduced effectiveness of UW operations.

145. Guerrilla Warfare

a. Guerrilla warfare comprises that part of unconventional warfare conducted within enemy-held territory by predominantly indigenous forces to reduce the combat effectiveness, industrial capacity, and morale of the enemy. Guerrilla operations normally are conducted by units organized on a military or paramilitary basis.

b. Intelligence requirements for support of guerrilla operations are based on the following factors upon which successful guerrilla operations depend:

- (1) Popular local support of the objectives of the guerrilla force and support of the force itself.
- (2) Occupying powers or existing government so engaged that they are unable to spare adequate forces to eliminate guerrillas or to protect lucrative guerrilla objectives.
- (3) Availability of logistical support either from the local population, the enemy, the sponsoring power, or a combination of the three.
- (4) Favorable terrain such as mountains, forests, jungles, and swamps.

c. To furnish the required information and intelligence, use is made of strategic intelligence reports and studies, field operations intelligence activities, and studies prepared by other governmental agencies such as the State Department, the Department of Commerce, and the Central Intelligence Agency. Deep reconnaissance by air and other means, prisoner of war and refugee interrogation, and study of enemy communications intercepts, newspapers, and broadcasts are used to supplement previously prepared strategic intelligence and provide current information.

d. The effects of guerrilla warfare operations are evaluated through such means as aerial reconnaissance, use of clandestine agents and informers, communication intercepts, prisoner of war interrogation, enemy countermeasures and reactions, and through reports from the guerrilla force. This evaluation and analysis provide a basis for planning future guerrilla warfare activities.

146. Escape and Evasion

a. Escape and evasion are those activities of unconventional warfare to assist friendly military personnel and other selected individuals in enemy-held or unfriendly areas to evade capture and to escape if captured.

b. In support of escape and evasion activities, information and intelligence are required on such items as areas suitable for evasion activities, methods of escape from enemy custody, enemy procedures for area control and search, and location of enemy supply installations which may be raided for supplies. The intelligence officer, in consultation with the operations officer, analyzes this information and intelligence and *assists* the operations officer in devising escape and evasion plans. The intelligence officer coordinates counterintelligence measures to support the plans and assists in escape and evasion training pertaining to intelligence. See FM 21-77.

c. Information and intelligence are required to evaluate and improve escape and evasion plans and are obtained from normal intelligence operations, interrogation of knowledgeable prisoners of war, refugees, and successful escapers and evaders. Field operations intelligence personnel can, at times, obtain information to assist in the evaluation.

Section III. TACTICAL COVER AND DECEPTION

147. General

Tactical cover and deception is that form of military cover and deception organized and undertaken to support tactical plans and operations. It embraces cover and deception which is sustained over a relatively short period of time, with a limited, well-defined mission, normally local in character. It is a military operation designed to disguise our dispositions, capabilities, and intentions and to mislead the enemy so that he will react in a manner to his disadvantage and our advantage. Included in this category of operations are feints, ruses, demonstrations, diversions, and holding attacks. See FM 31-40.

148. Intelligence Requirements for Cover and Deception Operations

a. Tactical cover and deception plans are based on knowledge of the enemy's psychology and intelligence capabilities. To prepare a decep-

tion story, information and intelligence of the following are necessary: enemy means of collecting information and the capabilities of these means; how the enemy processes information to include what the enemy considers as indications; at what enemy command level action is taken in the deception story; and the personalities of the enemy intelligence officers and commanders that can be expected to act on the deception story. This information and intelligence are derived in part from studies of enemy procedures and order of battle of enemy units that collect and process information.

b. In the execution of cover and deception operations, it is essential to have intelligence on the progress of the operations. Early warning of enemy suspicions that a deception operation is being used against him also is required. This information and intelligence are produced by the use of normal collection means and special use of communications, intelligence, and covert agencies.

c. Part of any tactical cover and deception plan is the denial of certain information to the enemy. Security of cover and deception plans and operations are supported by counterintelligence measures. Information on every phase of tactical cover and deception plans and operations is disseminated on a need-to-know basis. To safeguard this information, special procedures such as restricted areas, security checks, special passes, and special handling of documents and equipment are established.

d. *Continued* success of tactical cover and deception operations depends in part on convincing the enemy that his failure was due to faulty evaluation of information. To accomplish this, the normal pattern of intelligence activities is continued during and after tactical cover and deception operations. See FM 31-40 for further details.

Section IV. ELECTRONIC WARFARE

149. General

a. Electronic warfare (EW) is the military use of electronic devices and techniques to prevent or reduce effective enemy use of radiated electromagnetic energy while insuring our own effective use of such energy. Responsibility for providing electronic warfare support to the Army is assigned to the Chief Signal Officer and the Chief, U. S. Army Security Agency. The various subdivisions of EW are described below.

b. Electronic countermeasures (ECM) are actions taken to prevent or reduce the effectiveness of enemy equipment and tactics using or affected by electromagnetic radiations. Passive ECM search for electromagnetic radiation to determine existence, source, and pertinent characteristics, includes the collection and technical analysis of electronic intercept information for immediate tactical use. Active ECM are electronic jamming and electronic deception.

c. Electronic counter-countermeasures are actions taken to insure our own effective use of electronic radiations in spite of the enemy's use of countermeasures.

d. Electronic warfare activities can—

- (1) Jam enemy radio nets.
- (2) Prematurely detonate enemy proximity fuzes.
- (3) Direct into harmless areas enemy aircraft or missiles dependent upon electronic guidance systems.
- (4) Blind, or present false information to, enemy electronic detection and fire control devices.
- (5) Simultaneously with any of the above, secure intelligence of enemy electronic equipment, organization, and locations.

e. It is not feasible to implement all the above capabilities simultaneously. Even partially successful EW operations can produce valuable intelligence information or severely impede an enemy operation if used at a critical time.

f. The overall implications of ECM are considered in planning EW operations. The undesirable effects of jamming on friendly electronic systems and communications intelligence sources are weighed against possible diversion of enemy resources to evade the jamming as well as the immediate tactical advantages to be gained. The estimated strategic and tactical benefits determine whether requirements for intelligence take precedence over the proposed jamming operation.

150. Electronic Warfare Intelligence Operations

a. The intelligence acquisition phase of EW is the gathering, evaluating, and interpreting of information of enemy electronic devices; determining the frequencies on which such devices operate; how and where they are operating; and any vulnerabilities inherent in the equipment which may be exploited. This intelligence acquisition phase, which includes both passive ECM and electronic intelligence, is the foundation on which subsequent EW operations are based. This phase of EW is continuous and fills two requirements:

- (1) The need for technical information on which to base research for equipment and systems improvement. For example, as new enemy equipment is brought into use, its characteristics must be learned rapidly to build a counter device to jam, blind, reduce its reliability, or otherwise make it ineffective.
- (2) Determination of location of enemy systems and their characteristics so that action may be taken against them. Such action may include EW operations or attack by fire.

b. The field use of EW includes—

- (1) The tactical search for EW targets (passive electronic countermeasures) which electronic intelligence has previously iden-

tified. This is performed by elements of EW units which, once the targets are located, take active ECM against them.

- (2) Active ECM counter (jam, blind, deceive, redirect, or prematurely detonate) enemy electronic communication nets, detection devices, guidance systems, or fuzing systems. Certain active ECM are closely allied to, or overlap, tactical cover and deception operations. These operations are coordinated by the intelligence and operations officers.

c. Defensive EW operations include electronic counter-countermeasures (CCM) or antijamming. These operations are coordinated by either the intelligence or operations officer, depending on the use of the equipment involved. Electronic counter-countermeasures include—

- (1) Siting of communications and surveillance equipment to reduce vulnerability to jamming. This includes dispersion, reverse slope positions, and frequent displacement.
- (2) Reducing the use of radiating communication and surveillance equipment by such measures as periods of listening silence. This hampers enemy signal intercept and intelligence acquisition operations.
- (3) Providing alternate communication and surveillance means. Such means preferably operate on different frequencies and from different locations.
- (4) Thorough operator training in antijamming techniques and ability to detect enemy deceptive action against our surveillance devices.

151. Intelligence Requirements for Electronic Warfare

a. Information and intelligence are required of enemy electronic means, including types of equipment, locations, place and purpose in the enemy order of battle, and operating frequencies. All available collection agencies are used to secure this information and intelligence which are incorporated into continuing estimates of enemy capabilities. Such intelligence includes both offensive and defensive EW capabilities of the enemy.

b. Requirements for specific ECM may be generated by the enemy's introduction of a new electronic guidance, detection, or fuzing system. In such cases, the attention of appropriate collection agencies is focused on this new intelligence target. Such agencies include technical intelligence detachments and those intelligence agencies supporting the field army which are capable of gathering the necessary technical data. These data, once gathered and interpreted, are used to plan ECM using existing equipment, or for developing new ECM equipment to fill the particular requirement.

Section V. CHEMICAL AND BIOLOGICAL WARFARE

152. General

a. Chemical warfare (CW) consists of the use of toxic chemical agents. Toxic chemical agents can be used to cause either heavy casualties or area contamination. Quick acting, nonpersistent toxic chemical agents produce heavy casualties, but contamination is generally dissipated in several hours or less. Persistent toxic chemical agents produce casualties and also may be used to deny terrain features and areas. These agents dissipate slowly and may present a skin contact hazard for several days, thus restricting the use of contaminated terrain and material.

b. Biological warfare (EW) is the use of living organisms or their toxic products, to produce disease or death of men, animals, or plants. Included in the term "biological warfare" is the use of chemicals to cause harm to plants.

c. The use of toxic chemical agents or biological agents may cause enemy activities which make the collection of information easier. For example, the use of persistent toxic chemicals may cause the enemy to vacate an area in which he has been well concealed.

153. Intelligence Requirements for Chemical and Biological Warfare

a. The enemy's CW and BW capabilities and the effects of toxic chemical or biological agents on the area of operations are considered in analyses of the area of operations, intelligence estimates, and collection plans. The surprise with which toxic chemical and biological agents can be used and the difficulties involved in immediate detection of such use, particularly verification of a biological attack, make indications of such use an important element in intelligence collection plans.

b. The unit counterintelligence plan includes measures to prevent the enemy from learning of our intentions regarding the use of toxic chemical or biological agents.

c. Effective use of CW and BW requires information and intelligence of targets and target areas for attack by our forces with toxic chemical and biological weapons. Predictions of the effects of the characteristics of the area of operations on the use of toxic chemical and biological weapons are required. Specifically, information of the effects of wind speed and direction, temperature, terrain, the degree of humidity, and the amount of precipitation on the use of toxic chemical or biological agents is required.

d. Chemical and biological contamination data are maintained by the chemical, biological, and radiological section (CBRS) of the TOC. This information is disseminated by the chemical officer under the supervision of the intelligence officer.

Section VI. AIR DEFENSE

154. General

Air defense operations include all measures designed to destroy, nullify, or reduce the effectiveness of attack by hostile aircraft and aerodynamic or ballistic-type missiles after they are airborne.

155. Air Defense Intelligence Systems

a. *General.* The rapidity of action in active air defense operations requires close integration of intelligence and operations functions and agencies. The provision of adequate, timely, reliable, and continuous intelligence is the backbone of an air defense system, and is the function of the *air defense intelligence system*. The system consists of a series of integrated radar and communication networks.

b. *Early Warning System.* Installing and supervising early warning networks to provide warning of possible attack by hostile aircraft and missiles, are the responsibilities of the theater joint air defense commander and field army commanders. Authority to coordinate early warning network operations is delegated to subordinate air defense commanders.

c. *Surveillance Systems.* Installing and operating air defense surveillance systems are the joint responsibilities of regional air defense commanders and field army air defense commanders, subject to the supervision of higher headquarters. Army surveillance operations are coordinated by the local air defense artillery commander.

d. *Acquisition and Fire Control Radars.* The primary function of acquisition and fire control radars is to acquire specific targets and to control the fires of specific air defense fire units. These radars, while not an integral part of the air defense intelligence system, are netted with and augment the intelligence system. Acquisition and fire control radars, when not actively used in their primary function, may be used to fill gaps in the air defense intelligence system.

156. Intelligence Requirements for Air Defense

a. The intelligence requirements for air defense are generally the same as the requirements for the theater air defense command listed in appendix XIII.

b. In planning surveillance of the battle area, electronic warning means are integrated with the other available information gathering means.

CHAPTER 8

INTELLIGENCE TRAINING AND INTELLIGENCE STANDING OPERATING PROCEDURES

Section I. INTELLIGENCE TRAINING

157. General

Intelligence training, including counterintelligence training, is given to *all* personnel. Personnel with intelligence activities as their primary duty are given additional training appropriate to their assignment.

158. Conduct of Intelligence Training

a. Intelligence training is integrated with other training except for specialized subjects and orientation. It is not conducted as a separate activity distinct from all other training.

b. Intelligence training emphasizes speed of collection and processing of information, and the extension of collection activities to the depth of the area of influence of the unit.

c. In training exercises, units should be provided with the intelligence means normally required during combat operations. These intelligence means are provided with realistic training situations.

159. Responsibilities

a. All commanders are responsible for the intelligence training of their units. All staff officers are responsible for the intelligence training of their staff sections.

b. The intelligence officer, in coordination with the operations officer, exercises staff supervision of intelligence training within the command. He prepares the intelligence training program, conducts intelligence schools, supervises intelligence training, conducts tests, and assists lower units in obtaining training aids and qualified instructors. He informs the operations officer of the time needed for intelligence training and requirements for facilities, training aids, and instructors. Close coordination by the intelligence officer with other members of the staff helps insure that intelligence training is integrated with other training.

c. Unit training pertaining to reconnaissance and the collection of information is planned and supervised by G2, in coordination with G3.

Orders directing intelligence training by units are issued by G3 in the name of the commander.

160. Specialized Intelligence Instruction Methods

a. The methods of instruction prescribed by FM 21-5 are applicable to specialized intelligence training. In most cases, specialized intelligence training is best accomplished by centralized instruction.

b. A division level intelligence school should be established for instruction of all officers and selected noncommissioned officers assigned to intelligence duties. Subsequent to this school, subordinate units conduct intelligence schools to train their regularly assigned intelligence personnel and others of their subordinate units. These schools are conducted by unit intelligence officers, with the assistance and under the supervision of the intelligence officer of the division or comparable unit. Personnel who attended the division level school instruct in subordinate unit schools. A system of intelligence schools within the command helps to establish standard practices throughout the command.

c. Training is not concluded with the completion of the division level and subordinate intelligence schools, but continues and is perfected by integration with other training and on-the-job training.

161. Intelligence Training and Maneuvers

a. Intelligence play in maneuvers should be designed to furnish realistic training in every aspect of combat intelligence, from the collection of information by all means to the production of intelligence. The use of Aggressor as a maneuver enemy improves realism and helps make commanders, staffs, and troops conscious of the enemy as a real opposing force.

b. Intelligence measures used in maneuvers include air reconnaissance, ground reconnaissance, use of surveillance devices, safeguarding military information, use of camouflage and camouflage discipline, restrictions on the use of communications, identification of aircraft, radiological monitoring, reporting of nuclear bursts, preparation and distribution of photos as supplements to maps, and the requisition and distribution of maps.

Section II. INTELLIGENCE STANDING OPERATING PROCEDURES

162. Routine Activities

The intelligence officer usually prepares an SOP for the routine activities of the intelligence section. An example of an outline form for an SOP for a division intelligence section is given in appendix XIX.

163. Intelligence Activities

The intelligence officer also usually prepares that portion of the command SOP that pertains to intelligence activities. An example of an outline form for the intelligence portion of a division SOP is given in appendix XX.

APPENDIX I

REFERENCES

FM 1-100	Army Aviation.
FM 3-5	Tactics and Techniques of Chemical, Biological, and Radiological Warfare.
FM 5-30	Engineer Intelligence.
FM 11-40	Signal Photography.
FM 19-40	Handling Prisoners of War.
FM 21-5	Military Training.
FM 21-6	Techniques of Military Instruction.
FM 21-26	Map Reading.
FM 21-30	Military Symbols.
FM 21-40	Small Unit Procedures in Atomic, Biological, and Chemical Warfare.
FM 21-75	Combat Training of the Individual Soldier and Patrolling.
FM 21-77	Escape and Evasion.
FM 30-7	Combat Intelligence Battle Group, Combat Command and Smaller Units.
FM 30-9	Military Intelligence Battalion, Field Army.
FM 30-9A	Military Intelligence Battalion, Field Army (U).
FM 30-10	Terrain Intelligence.
FM 30-16	Technical Intelligence (U).
FM 30-19	Order of Battle Intelligence.
FM 30-28	Armed Forces Censorship (Army).
FM 30-101	Aggressor, The Maneuver Enemy.
FM 30-102	Handbook on Aggressor Military Forces (U).
FM 30-103	Aggressor Order of Battle.
FM 31-21	Guerrilla Warfare and Special Forces Operations.
FM 31-40	Tactical Cover and Deception (U).
FM 31-71	Northern Operations.
FM 31-72	Mountain Operations.
FM 33-5	Psychological Warfare Operations.
FM 41-10	Civil Affairs Military Government Operations.
FM 72-20	Jungle Operations.
FM 100-5	Operations.
FM 101-5	Staff Officers Field Manual; Staff Organization and Procedure.

FM 101-10	Staff Officers Field Manual, Organization, Technical and Logistical Data.
FM 110-5	Joint Action; Armed Forces.
DA Pam 108-1	Index of Army Motion Pictures, Film Strips, Slides, and Phono-Recordings.
DA Pam 310-series	Military Publications Indexes (as applicable).
JCS Pub 1	Dictionary of United States Military Terms for Joint Usage.
AR 10-122	Army Security Agency (U).
AR 380-5	Safeguarding Defense Information.
AR 320-5	Dictionary of United States Army Terms.
AR 381-100	Counter Intelligence Corps; Mission and Employment (U).
AR 381-115	Counterintelligence Investigative Agencies.
AR 320-50	Authorized Abbreviations and Brevity Codes.
SR 380-80-1	Armed Forces Censorship.
SR 380-305-10	Standardization of Photo Intelligence Reports, Designation, and Content.
SR 550-25-1	Retention of War Trophies and Registration of War Trophy Firearms.
TM 3-240	Field Behavior of Chemical Agents.
TM 5-545	Geology and Its Military Applications.
TM 30-210	Interrogation Procedures (U).
TM 30-245	Photographic Interpretation Handbook.
TM 30-246	Tactical Interpretation of Air Photos.

APPENDIX II

SOURCES OF INFORMATION

1. Enemy Activity

a. Enemy activity is the source of most information of combat intelligence value. The volume and type of information available from enemy activities are limited by the capabilities of the means to detect and observe them and the measures taken by the enemy to mask his activities. For example, radar is limited to line of sight observation. In another case the enemy may use the noise of artillery fire to cover the sound of vehicular movement.

b. Information that the enemy has *not* engaged in certain activities is often of greater value than information of what he has done or is doing. For example, information that the enemy has not moved his reserves may influence the commander's choice of a course of action and use of firepower.

2. Prisoners of War

a. Prisoners of war are valuable sources of information, particularly of the immediate battle area and of the effects of our psychological warfare operations. Maximum information is obtained through skillful handling of prisoners of war from the time of capture until interrogation is completed. Interrogation personnel are carefully briefed on the information desired and provided with aids such as maps and aerial photos.

b. Interrogation of prisoners, particularly those wounded, is often easier immediately upon capture since they are likely to be suffering from shock and lowered morale. PWs are interrogated briefly at company, battle group, and combat command levels for information of immediate tactical value. Detailed interrogation of selected PWs takes place at division and field army within the combat zone. Corps may interrogate selected prisoners at division collecting points and army group may do the same at field army prisoner of war cages. Both corps and army group may interrogate selected prisoners at cages in the vicinity of their own headquarters, in which case they evacuate and hold such prisoners. Segregation is maintained, whenever possible, as an aid to interrogation.

c. Rapid evacuation reduces the delay between the time of capture and intelligence exploitation by interrogation of prisoner of war (IPW)

personnel. Evacuation from division and larger units is the responsibility of Military Police. Evacuation of PWs to the division collecting point is the responsibility of combat troops. All prisoners are screened during the evacuation process and some are recommended for further interrogation at higher headquarters and camps in the communications zone or ZI. From a division PW collecting point, prisoners are evacuated by field army to field army prisoner of war cages. From here prisoners are evacuated to camps in the communications zone where they may be evacuated to the ZI. Access to PWs for intelligence purposes takes priority over evacuation except when prohibited by the Geneva Conventions.

d. For convenience, prisoners of war may be divided according to their intelligence value, into the following categories:

- (1) *Category A.* PWs whose broad or specific knowledge of the enemy war effort requires immediate interrogation by specially qualified interrogators of the highest headquarters in the theater.
- (2) *Category B.* PWs with enough information about the enemy on any subject of intelligence value, in addition to information of tactical units, to warrant a second interrogation.
- (3) *Category C.* PWs with only information of immediate tactical value and who do not warrant a second interrogation.
- (4) *Category D.* PWs of no intelligence value.

e. Interrogation procedures for army captured PWs by other services and Allied forces are prescribed by theater or comparable headquarters. PW interrogation personnel of other services and Allied forces may be attached to army units for interrogation operations. Theater headquarters may establish a Joint Services Detailed Interrogation Center (JSDIC). The JSDIC is a highly specialized unit, staffed by qualified interrogators from all services to permit thorough exploitation of military, technical, psychological, political, economic, and other areas of information. Usually, only Category A prisoners are interrogated at JSDIC. Techniques of PW interrogation are discussed in TM 30-210. Actions of capturing units are discussed in FM 30-7. Handling of PWs is discussed in FM 19-40.

3. Local Civilians

a. Civilians who have been within enemy controlled areas may be valuable sources of information, particularly about terrain. They also may have knowledge of enemy installations and activities. Enemy civilians in recently captured areas often give information readily. Many disclose information in consideration of their own self-interests. Generally, the longer the delay in questioning civilians, the less valid is the information obtained. Civilians from enemy controlled areas are

carefully screen in order to detect line crossers and stay-behind enemy agents. Civilians sources also may provide data on climate, economics, sociology, psychology, and local resources. Law enforcement agencies may provide information on guerrilla and other dissident forces, line crossers, and stay-behind elements. Local civilians are particularly valuable sources of information in situations short of war and information of immediate areas of operations for divisions and smaller units.

b. Actively hostile civilians normally are collected by combat units and are evacuated through prisoner of war channels. Civilians who are hostile but who do not carry arms and do not physically resist the friendly forces *are not* considered prisoners of war. Such civilians are not evacuated through prisoner of war channels but are transferred to civil affairs control for disposition. The first positive establishment of civilian status is usually at battle group level prisoner of war collecting points. Identified civilians are screened for security suspects by the supporting military intelligence unit security section operating at battle group level and/or at division collecting points. Security section personnel may be augmented by civil police officials made available through the civil affairs officer.

4. Recovered Military Personnel

Recovered military personnel are sources of information of the area of operations and enemy dispositions and activities. Escapers and evaders are sources of information of successful evasion techniques. Interrogation of recovered military personnel is conducted in accordance with regulations prescribed by the theater headquarters. Within the limits prescribed, interrogation of such personnel at division level usually is limited to getting information of immediate tactical use. Recovered military personnel are evacuated as prescribed by the theater headquarters.

5. Captured Enemy Documents

a. Maximum collection of enemy documents is insured by appropriate training and supervision of small units and individuals. Captured documents furnish information which is generally reliable. However, enemy plans may be based on false assumptions or may have been changed. Documents also may contain enemy propaganda, or may have been prepared and planted by the enemy to be captured in an effort to confuse and deceive.

b. Documents taken from a prisoner of war are evacuated with the prisoner, in custody of a guard, so that the prisoner can be interrogated as to the content of the documents. Documents from other sources usually are forwarded through intelligence channels. Below division level, documents are inspected quickly for information of immediate

tactical value and then promptly forwarded to the intelligence officer of the next higher headquarters. FM 41-10 discusses disposition of historical and cultural documents and records of archival nature. TM 30-210 discusses examination, and processing of other captured documents.

c. All documents, after a brief examination, are classified into three groups, by division and higher headquarters as follows:

- (1) Documents of *immediate tactical value* are referred to as "A" documents. Information from documents of this kind is transmitted to higher headquarters and affected adjacent units by the most rapid means available. Category "A" documents are retained within the theater, and are available to any authorized agency. "A" documents which also contain strategic intelligence are handled as "B" documents after the needs of the theater have been met.
- (2) Documents of *strategic intelligence value* are referred to as "B" documents. After final examination at theater headquarters, these documents are forwarded to the Assistant Chief of Staff for Intelligence, Department of the Army.
- (3) Documents of no military or strategic intelligence value are referred to as "C" documents. These are retained within the theater, to be disposed of in accordance with theater instructions.
- (4) Priority of transmission is determined by the above system of classification. "A" documents receive highest priority.

6. Enemy Materiel

At times captured material may have immediate intelligence value by contributing to target information, order of battle intelligence, and development of enemy capabilities and vulnerabilities. The production of technical intelligence is assisted by a continuous collection and exploitation effort by both combat troops and the technical services. See FM 30-16.

7. Enemy Signal Communications and Other Electromagnetic Emissions

Enemy signal communications and other electromagnetic emissions are valuable sources of information of enemy plans and orders, unit identifications and locations, locations of fire control and surveillance devices, and similar data. Exploitation of these sources extends the depth of intelligence operations and contributes significantly to target acquisition (ch. 5).

8. Duds; Shell and Missile Fragments; Craters; Areas Contaminated by Toxic Chemical Agents, Biological Agents, and Residual Nuclear Radiation; and Nuclear Bursts

a. Duds and missile and shell fragments are sources of information on the type and caliber of enemy supporting weapons. This information helps in order of battle intelligence and in the determination of enemy capabilities and vulnerabilities. Crater analysis helps in target acquisition by leading to the locations of enemy weapons. Examination of areas contaminated by toxic chemical and biological agents helps identify the agents used, develop countermeasures, and evaluate enemy capabilities. Information of areas contaminated by residual nuclear radiation is required in determining use of terrain and for troop safety. Appendix III describes collection of radiological information.

b. Submission of shelling reports is a responsibility of the affected units. Submission of reports of enemy use of toxic chemical or biological agents is a responsibility of all commands having such knowledge. The use of a standard form for such reports helps insure that all pertinent information is forwarded (app. IV).

c. Information of nuclear bursts is essential for predicting fallout and estimating effects on enemy capabilities. The information required includes time of burst, ground zero, height of burst, yield, cloud dimensions, and observed effects. All units observing a nuclear strike report such information. (See FM 101-5 for a Nuclear Burst Report Form.) The information is submitted, using the area communications system, to the chemical, biological, and radiological section (CBRS) of the nearest tactical operations center (TOC).

9. Photographs

a. Ground and aerial photographs are excellent sources of detailed information of terrain, for damage assessment, and of enemy activities, particularly fortifications, weapons positions, organizations of tactical locations, movements, and location and extent of assembly areas.

b. Ground photography for intelligence purposes includes panoramic views of areas, large-scale coverage of specific objects and terrain features, flash recordings, and repetitive photographs for comparative purposes. A special type of coverage is comparative motion picture with individual frames used as still frames rather than as a motion picture sequence. Color and infrared photography provides additional detail and helps detect camouflage.

c. Panoramic photos are taken from a dominant terrain feature and usually comprise a series of overlapping photographs. In addition to providing information of the area, they are used to supplement maps and

air photos in coordinating observation plans, planning ground reconnaissance activities, coordinating fires, and orienting personnel.

d. Ground photography is usually performed by Signal Corps units at division and higher levels. Requests for ground photography for intelligence purposes are coordinated only to the degree necessary to avoid duplication of effort and to make best use of available resources. Requests for ground photography for intelligence purposes include—

- (1) Limits of the area to be photographed.
- (2) Recommended camera position.
- (3) Date and time photos are to be made.
- (4) Number of prints desired.
- (5) Deadline for delivery of prints.
- (6) Place of delivery.

10. Maps

Maps are the principal source of information of terrain. Map accuracy is determined by the data used in their preparation. Maps are supplemented by aerial or ground photographs, sketches, visual observation, trig lists, gazetteers, and other information. Trig lists are publications containing the exact location and elevation of benchmarks and other survey points, together with a complete description of their characteristics. Trig lists are of particular value to artillery and engineer units and are required for locating and orienting certain surveillance devices.

11. Weather Forecasts, Studies, and Reports

a. Much of the field army's requirement for weather information is met by the broader requirements of the Air Force for weather data. Local area forecasts or predictions depend on large area data which usually are detailed enough to reflect local conditions.

b. Weather service is provided to the Army by the Air Weather Service (AWS) of the Air Force. The Army is responsible for certain of its own weather information requirements such as ballistic-meteorological data. This responsibility is carried out by air defense brigades and groups, field artillery observation battalions, meteorological sections, certain chemical units for their own use, and Army aviation. Artillery meteorological sections can make winds-aloft observations and can determine upper air pressure, temperature, and humidity. Chemical units can furnish information of surface winds, temperature, and humidity, Army aviators report weather conditions within their area of flight operations. All units can provide weather data obtained by visual observation and, if required, may be equipped with instruments for collecting additional weather data.

c. AWS detachments maintain tactical weather stations at field army, corps, and division. AWS detachments—

- (1) Maintain continuous surveillance over weather conditions in the operational area of the units served, and advise commanders and staff officers of significant changes and developments in the weather situation.
- (2) Provide weather observations, detailed operational and planning forecasts, weather briefings for combat missions, reports of current weather, weather summaries, and climatological information as required to meet the needs of the organizations served.
- (3) Provide experienced weather personnel as required for consultation on special weather problems.
- (4) Collect, evaluate, and further disseminate weather data generated within the area.

d. These detachments send out tactical observer teams to make weather observations required to refine large area forecasts. Tactical units may be required to assist by supplying local weather data.

12. Miscellaneous

Other sources of information include informers, intelligence reports and studies prepared by higher, lower, and adjacent units, and reference materials prepared by the Office of the Assistant Chief of Staff for Intelligence, Department of the Army, and the other Armed Services and governmental agencies.

APPENDIX III

COLLECTION OF RADIOLOGICAL INFORMATION

1. General

a. Radiological information is collected by radiological monitoring or radiological survey, or both. Radiological monitoring is the use of radiac instruments to detect and measure nuclear radiation at a given point. Radiological survey is the systematic use of survey parties to determine the location, extent, and dose rate of nuclear radiation throughout an area. A survey party consists of a monitor and an assistant who may be either a driver or aviator radio operator. The survey party may be augmented by additional personnel for security or other reasons. Radiac instruments used in radiological monitoring and survey are survey meters and dosimeters. Survey meters measure dose rates and dosimeters measure total dose.

b. Radiological monitoring is included in normal reconnaissance and intelligence activities and does not interfere with the primary duties of the monitor personnel. Radiological survey operations are assigned as additional duties to the units or personnel conducting the survey. Since survey operations divert personnel and equipment from their primary duties, surveys are conducted only when radiological monitoring does not provide the required radiation information.

2. Radiological Monitoring

a. *Purpose.* Monitoring at all levels is a command responsibility. The frequency of monitoring is specified by the unit commander as an item of SOP. The purpose of monitoring is to allow prompt warning of all personnel of the presence of radioactive contamination. Reports of radioactivity are promptly transmitted.

b. *Monitoring Reports.*

- (1) *Initial report.* The initial contact with radioactivity of one roentgen per hour (r/hr) dose rate or higher is reported through command channels (except as indicated later) as a FLASH message giving location, dose rate, appropriate shielding information, and time detected. Initial reports are not screened or consolidated at headquarters below division or separate regiment or group in the combat zone and section or area command in the communications zone. Routing is through command

channels, from company-size units to the next headquarters in the chain of command and then to the chemical, biological, and radiological section (CBRS) of the higher headquarters. However, units in an area of another command submit their monitoring reports to the CBRS of the command in whose area the reporting unit is located. For example, a corps unit located in a division area submits monitoring reports to the division CBRS.

- (2) *Subsequent reports.* Monitoring reports after the initial reports are submitted in accordance with the unit SOP. Meter readings are taken at time intervals or at dose rate intervals or at combinations of these two intervals. These subsequent readings are screened and consolidated at intermediate headquarters so that only those readings from subordinate units which differ significantly within the unit (i.e., company area) are reported to higher headquarters. If there are no significant differences in readings of subordinate units, the highest reading is reported as representative for all units. Subsequent reports include the location, dose rate, and time of the reading.
- (3) *Summary report.* Below division level and within a communications zone section or area, a summary report consists of an overlay showing the radiation situation in that unit's area. It is submitted by subordinate units *when directed*. This overlay depicts the pattern of radioactivity in the area as compiled from monitoring reports. The CBRS normalizes this information and incorporates it into the current radiation situation map. Units continue monitoring in accordance with unit SOPs, or as directed, even after summary reports are submitted. Division, corps, and communications zone sections or areas submit current contamination charts instead of summary reports.
- (4) *Current contamination charts.* These are charts or overlays showing the present radiation situation based on monitoring and/or survey information.

3. Radiological Survey

a. *General.* The primary survey method is a centrally controlled operation in which each survey party reports radiological data directly to the CBRS. The alternate method is a decentralized operation, directed through command channels, and controlled by a subordinate command. The subordinate command furnishes the radiological data to the CBRS. An aerial survey is normally a centrally controlled operation. Ground survey is carried out by either the primary or alternate method, depending upon the desires of the commander and communications capabilities.

b. *Reporting Procedures.* Reporting procedures for monitoring and for survey differ. Monitoring reports go through command channels (except

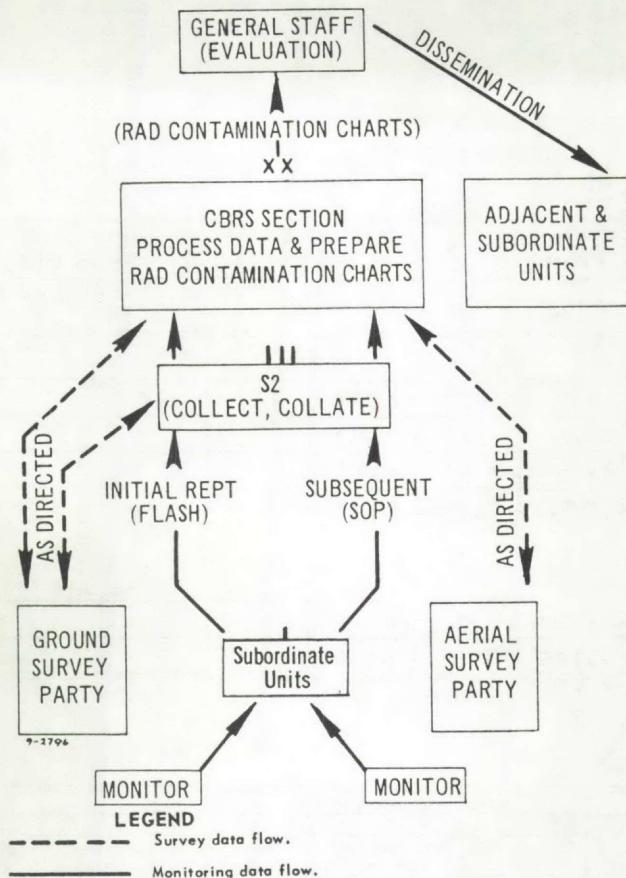


Figure 14. Radiological monitoring and survey data flow.

as indicated in par. 2b) where they are screened, consolidated, and evaluated at each headquarters. Survey reports go direct to the CBRs from survey parties or from the subordinate unit control party directing the survey. They are not screened, consolidated, or evaluated at intermediate headquarters.

c. Primary Method Reporting Procedures. Aerial and ground survey parties communicate by radio direct to the CBRs or the nearest area communications center, or submit data as directed.

d. Alternate Method Reporting Procedures. Survey data are transmitted through subordinate unit control parties (or as directed by the control parties) to the CBRs. When ground survey parties are performing survey by the alternate method, the preferred procedure is for the survey parties to submit completed data sheets to their control parties. The control parties transmit the data to the CBRs, in accordance with the unit SOP.

9-2706

9-2706

9-2706

DATA SHEET FOR RADIOLOGICAL SURVEYS (AERIAL)				DATE 27 Aug 58		PAGE 1 OF 1 PAGES PARTY #3, CBRS, 1 st Div																					
MAP KURLSO, 1/50,000, Sheet V		TIME INTERVAL 30 seconds		AIRCRAFT TYPE H-13		INSTRUMENT NO. AC 8																					
COURSE LEG DESIGNATION		A→B	C→D	E→F	G→H	I→J	K→L																				
ALTITUDE, feet		200	200	200	200	200	200																				
TIME AT START OF LEG		0618	0628	0635	0650	0657	0704																				
REMARKS Probe apparently contaminated on last two legs - data not transmitted.		Dose rate r/hr <u>mr/hr</u>	Dose rate r/hr <u>mr/hr</u>	Dose rate r/hr <u>mr/hr</u>	Dose rate r/hr <u>mr/hr</u>	Dose rate r/hr <u>mr/hr</u>	Dose rate r/hr <u>mr/hr</u>																				
		1 150	1 250	1 3	1 4	1 2	1 2																				
		2 180	2 280	2 3	2 8	2 2	2 2																				
		3 200	3 330	3	15	2	2																				
AIR-GROUND CORRELATION FACTOR DATA		<table border="1"> <tr> <th>LOCATION</th> <th>ALTITUDE feet</th> <th colspan="2">Dose rate r/hr or <u>mr/hr</u></th> </tr> <tr> <td></td> <td></td> <th>AIR</th> <th>GROUND</th> </tr> <tr> <td>A</td> <td>200</td> <td>150</td> <td>330</td> </tr> <tr> <td>C</td> <td>200</td> <td>250</td> <td>450</td> </tr> <tr> <td>F</td> <td>200</td> <td>15¹/hr</td> <td>30¹/hr</td> </tr> </table>						LOCATION	ALTITUDE feet	Dose rate r/hr or <u>mr/hr</u>				AIR	GROUND	A	200	150	330	C	200	250	450	F	200	15 ¹ /hr	30 ¹ /hr
LOCATION	ALTITUDE feet	Dose rate r/hr or <u>mr/hr</u>																									
		AIR	GROUND																								
A	200	150	330																								
C	200	250	450																								
F	200	15 ¹ /hr	30 ¹ /hr																								
		10	10	10	12	10	10																				
		11	11	11	15	11	11																				
		12	12	12	20	12	12																				
		13	13	13	25	13	13																				
		14	14	14	18	14	14																				
		15	15	15	16	15	15																				
		16	16	16		16	16																				
		17	17	17		17	17																				
		18	18	18		18	18																				
		19	19	19		19	19																				
		20	20	20		20	20																				
TYPED OR PRINTED NAME AND GRADE John R. Jones, 1/Lt		MONITOR SERVICE NUMBER 0000 000		SIGNATURE <i>John R. Jones</i>																							

DA Form 1971-1-R, 1 Nov 58

Figure 16. Completed DA Form 1971-1-R (aerial) for an aerial radiological survey.
(Reproduce form locally on 8" x 10½" paper)

APPENDIX IV

STANDARD SHELLING, MORTARING, BOMBING, AND TOXIC REPORT

SHELREP, MORTREP, BOMREP, TOXREP (State which.)

- A. FROM (Unit, use current call-sign address group or code name.)
- B. POSITION OF OBSERVER—grid reference preferred (Encode if this discloses location of a headquarters or important observation post.)
- C. GRID OR MAGNETIC (State which.) BEARING OR AZIMUTH OF FLASH OR SOUND OR GROOVE OF SHELL (State which.) IN MILS OR DEGREES (State which.) ORIGIN OF FLIGHT PATH (missiles). (Omit for aircraft.)
- D. TIME FROM
- E. TIME TO
- F. AREA SHELLED, MORTARED, BOMBED, OR CONTAMINATED May be sent either:
 - (1) Bearing/azimuth (In degrees or mils—state which.) and distance (In yards or meters—state which.) from observer.
 - (2) Grid reference (Clear reference may be used consistent with security requirements). (See note 2c, below.)NOTE: Where method (1) is used, maximum accuracy possible is essential.
- G. NUMBER AND NATURE OF GUNS, MORTARS, AIRCRAFT, OR OTHER METHODS OF DELIVERY.
- H. NATURE OF FIRE (Registration, bombardment, harassment, etc). (May be omitted for aircraft.)
- I. NUMBER AND TYPE OF SHELLS, BOMBS, TOXIC AGENTS, ETC.
- J. TIME OF FLASH TO BANG. (Omit for aircraft.)
- K. DAMAGE (Optional). (May include both effects and casualties in the case of toxic attack.)

NOTES: 1. Code Words

Each transmission will be preceded by one of the following code words:

- a. SHELREP (in the case of enemy cannon or missile fire).

- b. MORTREP (in the case of enemy mortar fire).
 - c. BOMREP (in the case of enemy air attack).
 - d. TOXREP (in the case of enemy toxic attack).
2. Security
- The message always will be transmitted in clear except for—
- a. The originating unit (heading A) for which the current call-sign, address group, or equivalent will be used when the message is sent by radio/wireless.
 - b. The location of the observer (heading B), which will be in code if sent by radio/wireless if it discloses the location of a headquarters or important observation post.
 - c. When the originator considers that the conditions prevailing warrant a higher classification.
 - d. Damage (heading K) is not sent in the clear.
3. Use of Headings
- Each heading of the format is given a capital letter which makes for ease of communication. The heading itself is NOT transmitted. Headings of the format which cannot be completed or are not applicable will be omitted in the transmission of the report.
4. Transmission
- Reports will be transmitted by the fastest means available, using the format given above. Example:

SHELREP

ALFA	OSCAR PAPA 1
BRAVO	UNIFORM TANGO 365478
CHARLIE	GRID AZIMUTH FLASH 1,438 MILS
DELTA	1252
ECHO	1257
FOXTROT	UNIFORM TANGO 378543
GOLF	2 UNKNOWN
HOTEL	HARASSMENT
INDIA	18 UNKNOWN
JULIETT	3 SECONDS
KILO	NEGLEGIBLE

APPENDIX V

AIR RECONNAISSANCE REQUEST PROCEDURES

1. General

a. Air reconnaissance request procedures depend on whether the request is for a preplanned or an immediate mission. For preplanned missions, sufficient time is available for complete planning and preparation before execution, usually at least a day. The need for immediate missions arises quickly and cannot be planned for in advance. From division to field army, all air reconnaissance requests are processed through intelligence (G2 air) channels to the tactical air support section of the tactical operations center on a form usually prescribed by the field army. A standard form makes sending requests faster and easier. Figure 17 shows one form.

b. The appropriate Army headquarters, usually the field army, prescribes a uniform method for establishment of air reconnaissance mission priorities within the command. The method includes procedures for reevaluating and screening priorities at each level of command. A common method is to indicate priority by a combination of letter and number reflecting the time and tactical urgency of a specific mission.

c. The Air Reconnaissance Route and Area Overlay is used in preparing and carrying out the unit air reconnaissance plan. Such an overlay is a rapid and secure means for transmitting requests for aerial reconnaissance coverage. DA TC 30-2, 29 September 1959, "Air Reconnaissance Route and Area Overlay System," describes the preparation of such overlays.

2. Preplanned Air Reconnaissance Request Procedures

a. The division G2 air screens requests from the staff and subordinate units and assigns each mission a priority. He forwards the consolidated requests which cannot be fulfilled by division aviation to the corps G2 air. Missions which can be performed by division aviation are coordinated with the division aviation officer and then forwarded to the aviation company.

b. The corps G2 air screens requests from subordinate divisions, consolidates them with the corps requests, and assigns new priorities. He forwards the consolidated corps requests which cannot be fulfilled by

corps aviation to the G2 air at field army. Missions which can be performed by corps aviation are coordinated with the corps aviation officer and then forwarded to the appropriate corps aviation unit.

c. The field army G2 air screens corps requests, consolidates them with those originating at field army and assigns priorities. He forwards the requirements which cannot be fulfilled by Army aviation to the supporting Services for execution. Missions which can be performed by Army aviation are coordinated with the Army aviation officer and then forwarded to the appropriate Army aviation unit.

d. For requests to be executed by a supporting service, the field army G2 air gives the air reconnaissance support battalion (ARSB) necessary briefing information, priority lists for interpretation of photos, and distribution instructions for photos and photointerpretation reports. The ARSB in turn forwards this information to the Army air reconnaissance liaison officers (ARLOs) at the reconnaissance airfields (par. 8).

e. The field army G2 air reconnaissance subbranch (par. 7) informs each corps G2 air of their mission priorities, estimated time over target, assigned mission numbers, and reasons for disapproval of any requests. The corps G2 air in turn, informs the division G2 air of this information.

3. Immediate Air Reconnaissance Request Procedures

The procedures for immediate air reconnaissance requests are the same as for preplanned air reconnaissance requests except that within the division, a special purpose air request radio net is used and division requests are sent direct to the field army G2 air via the air request net. The corps G2 air monitors the air request net (par. 6) and approves division requests by remaining silent. If division requests are sent by means other than the air request net, the corps G2 air is informed immediately.

4. Procedures for Division, Brigade, Battle Group, and Combat Command Headquarters

Units subordinate to the brigade and combat command headquarters send requests for air reconnaissance direct to the division G2 air via the division air request net. Information resulting from executing these requests, if received through the division headquarters, is disseminated to the brigade and combat command headquarters as well as to the requesting unit.

5. Procedures for Army Aviation

a. Air reconnaissance mission using Army aviation not in direct support are requested as described in paragraphs 2 and 3 above. When not specifically designated by the requesting agency or the G2 air, the aviation unit selects the equipment to perform assigned missions. Army

TACTICAL AIR RECONNAISSANCE SUPPORT FORM		
SECTION I ARMY MISSION DATA		
1. Army Mission Request No <u>101</u>	2. Unit <u>Powerhouse G2 Air,</u>	3. Priority <u>2</u>
4. Type Mission (Photo) (Visual) (Other) <u>Vis/photo</u>		
5. Target/Area Description <u>Vis: R-1 to Z-51 to R-4 to Z-56 to R-5. Pinpoint photo targets 9,</u>		
6. Time on Target <u>PM</u> 7. Time no longer of value <u>15, 23, and 26. 040400 Sep</u>		
8. Specific Information/Results desired <u>Suspected enemy armor moving on routes or assembling in areas, or in vicinity of above. Require types of eqpt, direction and speed of movement.</u>		
9. Type Photo <u>V</u>	10. Scale <u>Medium</u>	11. Oblique Camera Direction <u>N/A</u>
12. No prints per usable neg: a, ARSB <u>2</u> b, Recce Tech <u>N/A</u> c, Fly Sqdn <u>N/A</u>		
13. Deliver (Film) (Prints) to: <u>Powerhouse G2 Air 26Y154367</u>		
14. Spot report required: <u>Yes</u>		
15. Arty Adj/Contact Recon a, Call Sign <u>N/A</u> b, Prim freq <u>N/A</u> c, Secon Freq <u>N/A</u>		
d. Firing Unit loc <u>N/A</u> e, Caliber wpm <u>N/A</u> f, Max ordinate <u>N/A</u>		
g. Effects desired <u>N/A</u>		
16. Remarks: <u>This request covers preplanned night recon for period 031500-032400 Sep for this unit.</u>		
SECTION II ARMY ACTION		SECTION III ASOC ACTION
Received at <u>Tiger G2 Air 031545 Sep</u> (Unit-Date-Time)		Received at ASOC _____ (Date-Time)
By <u>CWK</u> Location Checked <u>CWK</u> (Init) (Init-Date-Time)		By _____ Location Checked _____ (Init) (Init-Date-Time)
Coordinated: Arty Air Def Avn <u>CWK</u> (Init)		
Approved/Disapproved <u>CWK 031600 Sep</u> (Init-Date-Time)		Approved/Disapproved _____ (Init-Date-Time)
Reason for disap, roval <u>N/A</u>		Reason for disapproval _____
Fwd to <u>Powerhouse</u> By <u>CWK 040400 Sep</u> (Unit) (Init-Date-Time)		
Requesting Unit Notified: <u>CWK 031800 Sep</u> (Init-Date-Time)		Return to Army _____ By _____ (Date - Time) (Init)
ARSB notified: <u>CWK 031800 Sep</u> (Init-Date-Time)		
Add'l } <u>Tiger</u> <u>2</u> Print (Unit) (No per neg) Distr (Unit) (No per neg)		
SECTION IV AIR MISSION DATA		
1. Mission No _____		Army Mission Req No _____
2. Accomplishing Org _____		Notified _____ (Init-Date-Time)
3. Unit Call Sign _____		
4. No & Type Aircraft _____		Priority _____
5. TOT _____		
6. Control Info _____		
7. Army Mission Data _____		
8. SCC notified _____		(Init-Date-Time)
9. Other coordination _____		(ALO) (TDP)

① Front.

Figure 17. Tactical Air reconnaissance request form.

EXPLANATORY NOTES FOR TACTICAL AIR RECONNAISSANCE SUPPORT FORM

SECTION I: To be used by any Army unit requesting tactical air reconnaissance. When transmitting section I by electrical means, only item number and information required will be included.

- Item 1 - - Army mission request number is assigned at division (or higher headquarters when such headquarters originates the request)—per Army SOP.
- 2 - - The requesting unit.
- 3 - - Requesting unit priority. This priority will be modified, as required, at field army/independent corps prior to forwarding to ASOC.
- 7 - - Time information, spot reports, or photos no longer of value.
- 11 - - Direction oblique cameras should be facing when exposures are being made.
- 12 - - Requesting unit specifies number of prints desired under 12a. Field army/independent corps may indicate 12b and/or 12c. If no printing requirements are indicated, immediate photo report only will be furnished.
- 15 - - On artillery adjustment missions all subitems (15a through g) will be completed. On contact reconnaissance missions, subitems 15a through c only.

SECTION II: Completed by Army action agency at any echelon of command.

SECTION III: Completed by Reconnaissance Section, ASOC.

SECTION IV: Item 2 - - Wing call sign or number.

Item 6 - - TDP, etc. controlling mission.

Item 7 - - To indicate point at which Army mission data (section I) will be transmitted to the accomplishing unit.

② Reverse.

Figure 17—Continued.

aviation photo missions are coordinated by the G2 air with the agency providing reproduction facilities, normally the signal battalion.

b. G2 air personnel operate at unit airstrips for briefing and debriefing aviators and observers, disseminating results of air reconnaissance missions, and immediate interpreting of photos taken by Army aircraft.

6. Air-Ground Communication

a. Communication for Army air-ground operations is provided by a combination of special purpose nets and division and field army area communications systems. Special air-ground communication nets include—

- (1) *The information net* which links the ARSB, the field army G2 air, and the corps G2 air. It is used for transmitting information and intelligence.
- (2) *The Army air request net* which links the division, corps, and field army G2 air and G3 air. It is used for requesting offensive and reconnaissance air support.
- (3) *The division air request net* which links the division and its major subordinate units. It is used for requesting offensive and reconnaissance air support.

- (4) *The air reconnaissance liaison officer (ARLO) net* which links the ARLOs, immediate interpretation platoon at the reconnaissance airfields, and the ARSB. It is used for sending instructions to ARLOs and the immediate interpretation platoon and for sending reports to the ARSB.
- (5) *The spot receiver system* which consists of organic radio equipment at combat battalion and larger headquarters for monitoring in-flight spot reports on reconnaissance and offensive missions flown for the unit by supporting services. These radios also are used for emergency communication with the aircraft.

b. Variations in air-ground communications may be required by limited availability or effectiveness of equipment and distances between headquarters. Variations must provide for timely transmission of requests and information among all agencies concerned.

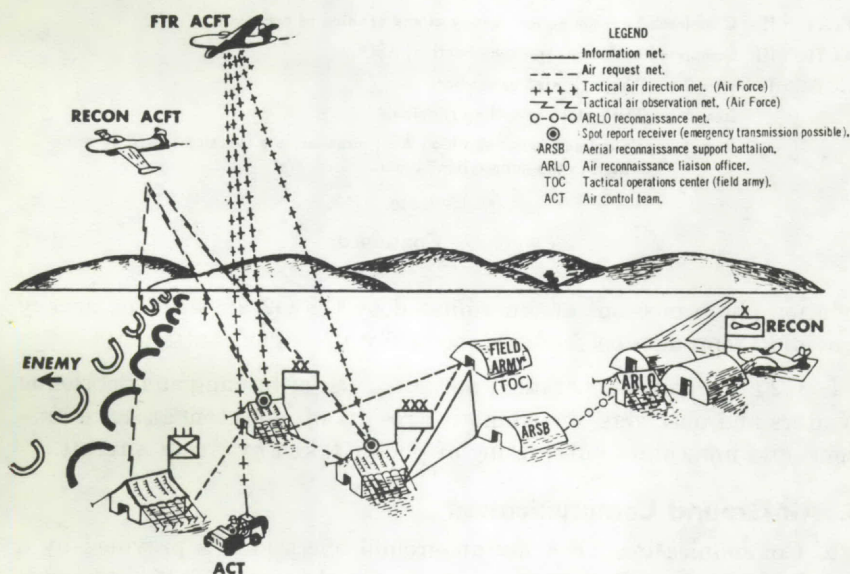


Figure 18. Air-ground communication.

7. Field Army G2 Air Branch

a. The G2 air branch plans and processes requests to the supporting service for air reconnaissance support and furnishes necessary information and priorities to the ARSB.

b. *The G2 target element* consults with the G3 air in the development of the field army interdiction program, prepares air target data, and advises G3 air on air targets.

c. Elements of the field army G2 air branch normally operate as part of the tactical air support section of the field army tactical operations

center (FATOC) and the G2 air branch may be represented in the fire support coordination section of the FATOC.

8. Air Reconnaissance Support Battalion

a. Each field army has an ARSB for reproducing, interpreting, and disseminating information from aerial reconnaissance by the supporting services in support of the field army. The ARSB is under the operational control of the field army G2.

b. The capabilities of the ARSB are as follows:

- (1) The headquarters and headquarters detachment controls and administers army units and personnel working with the supporting service air reconnaissance units. It provides army liaison personnel (ARLOS) to the supporting service air reconnaissance elements for briefing and debriefing pilots and aircrews.
- (2) The signal airphoto reproduction and delivery company reproduces and delivers to Army units, airphotos taken by the supporting services. The company maintains a *negative* library for reprint and basic cover purposes. It can deliver to the field army, corps, and divisions daily by organic aircraft.
- (3) The airphoto interpretation company prepares photo intelligence reports which include spot reports, "immediate" reports, and other types of imagery interpretation reports (ch. 4). It maintains a *print* library for the field army. The "immediate" photo interpretation platoons of the company are located with the supporting service air reconnaissance squadrons.

APPENDIX VI

DISSEMINATION MEANS

Section I. AS-REQUIRED REPORTS AND STUDIES

1. Spot Reports

Spot reports are one-time reports containing information or intelligence requiring immediate dissemination. A spot report does not follow a prescribed form. It should, as far as practicable, answer the questions: *who? what? when? where? and how?*

2. Summaries of Weather and Climate

a. These are *information* summaries used as a basis for other estimates and plans. They usually are prepared by the supporting Air Weather Service detachments as requested by the intelligence officer. The summaries are disseminated by the intelligence officer and may be included as annexes to intelligence documents such as written analyses of the area of operations, intelligence estimates, and periodic intelligence reports (PERINTREP).

b. A *weather summary* is a description of the weather at a point, along a route, or within an area during a specified recent period. Weather summaries are used in analyzing the effects of weather on recent operations and in estimating the effects of weather on future operations. They are required for engineer forecasts of stream flow, condition of ground, and trafficability.

c. A *climatic summary* gives statistical data in terms of averages, extremes, and frequencies of occurrence for a specified period of time, such as a year, season, month, at a given point, along a route, or within an area. Climatic summaries are compiled from historical records of weather observations over long periods. An example is given at the end of this appendix.

3. Climatic Studies

A climatic study is the analysis and interpretation of climatic information (climatic summary) in the light of probable effects on operations. Climatic studies usually are prepared at corps and higher headquarters. Detailed climatic studies for strategic areas of the world are in the *National Intelligence Survey*. The supporting air weather service element, at the request of the intelligence officer, prepares climatic studies for specific areas. The intelligence officer interprets and refines these

climatic studies to meet the particular requirements of the command. Climatic studies are disseminated on the same basis as weather and climate summaries.

4. Photo Interpretation Reports

a. These reports may be spot reports, notes on photographs, or in the forms prescribed in TM 30-245 and SR 380-305-10. Airphotos are used for study of terrain, study of enemy activities and installations, post-strike analysis, aids in orienting personnel, map substitutes, location of friendly installations, and selection of areas for tactical activities such as assembly areas and avenues of approach. The basic types of photo interpretation reports are *immediate*, *mission review*, *summary*, *detailed*, and *special*.

b. *Immediate reports* are written and supplements oral spot reports when a wide dissemination or written confirmation of an oral spot report is required. An immediate report does not have a prescribed form.

c. *Mission review reports* have a prescribed form and are prepared on each airphoto mission flown by a supporting service. They contain a summary of the information on installations, activities, and areas photographed for the first time, or on changes which have occurred since the last photo coverage. These reports are distributed to units which will not require further photo interpretation or which do not have trained photo interpreters. Mission review reports are prepared and disseminated, by the ARSB, usually within 48 hours, in accordance with procedures established by the field army G2. Mission review reports provide a basis for order of prints or requests for detailed reports described below.

d. *Summary reports* consolidate information from earlier photo reports by category and time period, develop trends and patterns pertaining to targets covered, and describe the current status of the targets. These reports are valuable in acquiring targets deep in enemy held areas. Summary reports are normally prepared by the ARSB as requested.

e. *Detailed reports* give complete information on individual targets or areas for use in strategic and tactical planning. They contain detailed and precise information gained from thorough study of photography and other intelligence sources. These reports are prepared as required at corps and higher echelons.

f. *Special reports* are used to present information not included in the above reports. Special reports usually thoroughly treat a subject or a related group of subjects and normally require considerable time for completion and publication. These reports are prepared as required at corps and higher echelons.

5. Prisoner of War Interrogation and Translation Reports

These reports summarize, or report in full, the results of interrogation of one or more prisoners of war, and translations of extracts or sum-

maries of enemy documents. Information of immediate value is disseminated as a spot report. Other information is disseminated in the most convenient form, considering the needs of the users. At corps and higher echelons, detailed reports of these types usually are distributed as annexes to the PERINTREP (par. 12). TM 30-210 discusses techniques of preparing prisoner of war reports.

6. Technical Intelligence Bulletin and Summaries

These reports are used to disseminate the results of examination of enemy materiel. Bulletins usually deal with individual items, and summaries are broader in scope. They are disseminated either through command channels, technical intelligence channels, or technical service channels, depending on the scope and nature of the contents.

7. Order of Battle Books and Handbooks

a. Order of battle *books* contain lists, histories, code names, and other data on foreign units, and biographical data on foreign military personalities.

b. Order of battle *handbooks* contain data concerning the political structure, military system and organization, and tactical doctrine of foreign nations.

c. Order of battle books and handbooks are usually prepared by the Department of the Army and theater headquarters. Field army may issue supplements to keep these documents current.

8. Radiological Contamination Estimates and Reports

a. At division and higher headquarters within the field army, the chemical, biological, and radiological section (CBRS) of the tactical operations center prepares and disseminates radiological contamination information by means of current or future contamination charts. The *current contamination chart* is a plot of dose rate contours of operational interest extracted from the radiation situation map maintained by the CBRS. In *future contamination charts*, decay factors are applied to estimate the radiation situation at future times. Current and future contamination charts are disseminated to interested staff sections, agencies, and other headquarters.

b. *Fallout predictions* are scale plots which indicate only the possible danger areas from fallouts; dose rates are not predicted. The plots contain earliest times of arrival points. They also may depict the "hot line," the probable time of ending of fallout, and the general area of contaminated air which is of interest to aircraft or which may be affected by rainout. The hot line extends to any distance from ground zero through points of maximum dose rate and roughly describes the axis of the fallout pattern. The dose rate generally decreases downward along this line

and radially away from it. Radiation predictions are based on current or forecast meteorological data and actual or assumed ground zero, yield, height of burst, and cloud data. Fallout predictions provide information which is used as a basis for planning and estimates. Fallout predictions from enemy or friendly use of nuclear weapons, before and after the burst, are prepared in the CBRS of the TOC or similar agency. Fallout predictions resulting from enemy use of nuclear weapons, actual or assumed, are distributed by the CBRS as directed by the intelligence officer to interested staff officers, agencies, and subordinate units.

Section II. RECURRING REPORTS AND STUDIES

9. Weather Forecasts

a. A *weather forecast* is a prediction of the weather conditions expected at a place, within an area, or along a route at a specified future time, or during a specified period. The accuracy and reliability of weather forecasts depend upon factors such as characteristics of the forecast area, available weather data, reliability of weather communications facilities, forecast period length, and the experience of the forecaster. Reliability of forecasts generally decreases as the forecast period increases. Weather forecasts are in coded (numerical), graphical (pictorial), or written (plain language) format. Weather forecasts for use by troop units are usually in plain language form. See figure 19 for contents of weather forecasts.

b. Forecasts are classified as short period, extended period, and long period. A short period forecast covers up to 48 hours in advance of the time of issue. Short period forecasts are also referred to by the length of the period covered, such as "12-hour," "24-hour," or "48-hour" forecasts. An extended period forecast covers a period of from 3 to 5 days, and a long period forecast covers a period more than 5 days in advance of the time of issue.

c. Because of their changing nature, timeliness is the critical factor in disseminating weather forecasts, especially short range forecasts. Weather forecasts are normally transmitted by electrical means.

d. The intelligence officer makes provisions for the dissemination of severe weather warnings. These are special forecasts of hazardous weather to enable units to take necessary action to prevent injury to personnel and damage to materiel. The type of weather for which severe weather warnings are issued depends on the needs of the unit. Severe weather warnings usually cover tornadoes, thunderstorms, dust or sand storms, extremely heavy precipitation, freezing temperatures, winds above specified speeds, and freezing precipitation. They are issued by the supporting air weather service detachment as requested. Flood warnings are the responsibility of the unit engineer. Severe weather warnings are normally disseminated as flash reports.

	3-5 day forecast ¹	48-hour forecast	24-hour forecast	12-hour forecast ²	12-hour flight forecast for aviation	Route and terminal forecasts for individual army aviation flights ³	Forecasts for use of nuclear weapons	Radiological defense forecasts
Cloud coverage—height and amount in general terms.	X	X						
Cloud coverage—height in feet above ground and amount in eights of sky.	....	....	X	X	X	X	X	
Temperatures in degrees centigrade, wind direction to nearest 10 degrees, and windspeed to nearest 5 knots at 2,000-foot intervals from surface to 30,000 feet.	....	....	....	....	X	X		
Precipitation, type, character, intensity, time of beginning, and duration.	X	X	X	X	X	X	X	
Weather phenomena to include items such as tornadoes, thunderstorms, squalls, blowing dust, blowing sand, and fog.		X	X	X	X	X		
Visibility—in units of distance with restrictive elements.	X	X	X	X	X ⁴	X ⁴	X	
General wind pattern.....	X							
Temperature ranges including freeze and thaw.	X	X	X	X				
Surface winds—general direction and speed	....	X	X	X				
Relative humidity—stated as low, medium, high.....	....	X						
Relative humidity—stated in percentages	....	....	X	X	....	....	X	
Terminal conditions at specified terminals to include ceiling in feet above ground, airstrip visibility, precipitation, surface winds, temperature, and dew point.	....	....	....	....	X	X		
Density altitude—information required established in local SOP.	....	....	....	....	X	X		
Thickness of cloud decks in feet.....	....	....	....	....	X	X	X	
Frontal conditions.....	....	....	....	....	....	....	X	
Altitude of tropopause in feet.....	....	....	....	....	....	....	X	X
Temperature in degrees centigrade, wind direction to nearest 10 degrees, and windspeed to nearest 5 knots at 6,000 feet intervals from surface to 102,000 feet. ⁵	....	....	....	....	....	....	X	X
Atmospheric Pressure.....	....	X	X	X	X	X	X	X

¹ Time of significant changes in weather elements should be given, when possible.

² This forecast gives weather conditions along the forward edge of the battle area. It should be subdivided, as appropriate, for the battle groups, regiments, and battalions concerned.

³ Information is for a specified route for a specific period. Additional information required are altimeter settings at destination and alternate strip.

⁴ At flight altitudes.

⁵ Surface to 60,000 feet each 2 hours and surface to 102,000 feet each 6 hours.

Figure 19. Contents of weather forecasts.

EXTENDED PERIOD FORECAST HILDAWOODS AND VICINITY VALID 01/0600Z TO 04/0600Z: 1 AUG: SKY CONDITION OVERCAST CEILING 5000 FEET (ABOVE TERRAIN) GRADUALLY LOWERING TO 1000 FEET BY SUNSET. VISIBILITY 5 MILES IN HAZE OCCASIONALLY LOWERING TO 2 MILES IN RAIN. WINDS NORTHEAST 3 TO 5 KNOTS. MIN TEMP RANGE 50° TO 60° F MAX 65° TO 75° F. 2 AUG: SKY CONDITION GENERALLY 500 TO 1000 FEET OVERCAST IMPROVING TO 2000 FEET SCATTERED BY SUNSET. VISIBILITY 1 TO 2 MILES IN LIGHT RAIN AND FOG BECOMING OVER 7 MILES BY NOON. WINDS NORTHEAST 5 TO 10 KNOTS BECOMING SOUTHWEST 10 TO 15 KNOTS BY MIDAFTERNOON. WARMER MIN TEMP 55° TO 65° F MAX 70° TO 80° F. 3 AUG: SKY CONDITION CLEAR VISIBILITY 10 TO 15 MILES WIND SOUTHWEST 15 KNOTS. LITTLE CHANGE MIN TEMP MAX RANGE 75° TO 85° F. LIGHT DATA: 1 AUG: MORNING NAUTICAL TWILIGHT 01/1151Z, EVENING NAUTICAL TWILIGHT 02/0240Z. MOON PHASE: FULL. MOONRISE 02/0230Z, MOONSET 02/1350Z. 2 AUG: MORNING NAUTICAL TWILIGHT 02/1152Z, EVENING NAUTICAL TWILIGHT 03/0239Z. 3 AUG: MORNING NAUTICAL TWILIGHT 03/1153Z, EVENING NAUTICAL TWILIGHT 04/0228Z. PLANNING DATA FOR RADIOLOGICAL FALLOUT: 1 AUG: 0-12000 SOUTH 10 TO 20 KNOTS, 12000-24000 SOUTH TO SOUTHWEST 15 TO 30 KNOTS, 24000-36000 SOUTHWEST 20 TO 40 KNOTS, 36000-48000 SOUTHWEST 35 TO 55 KNOTS, 48000-60000 SOUTHWEST TO WEST 50 TO 70 KNOTS. 2 AUG: 0-12000 SOUTHWEST 15 TO 40 KNOTS, 12000-24000 SOUTHWEST 25 TO 55 KNOTS, 24000-36000 SOUTHWEST 40 TO 75 KNOTS, 36000-48000 SOUTHWEST TO WEST 30 TO 40 KNOTS, 48000-60000 SOUTHWEST TO WEST 25 TO 35 KNOTS. 3 AUG: 0-12000 WEST TO NORTHWEST 20 TO 30 KNOTS, 12000-24000 WEST TO SOUTHWEST 35 TO 50 KNOTS, 24000-36000 WEST TO SOUTHWEST 50 TO 80 KNOTS, 36000-48000 WEST 25 TO 35 KNOTS, 48000-60000 WEST 20 TO 30 KNOTS.

Figure 20. Typical extended-period weather forecast.

10. Current Weather Reports

These reports contain information on existing weather conditions or specific weather elements. They may be oral, written, or graphic representations. They are made by Army aviators, field artillery observation units, artillery and air defense meteorological sections, and air weather service detachments. Other units furnish current weather reports as directed. Reports of current weather are used in connection with operations of aircraft, use of artillery, nuclear weapons, CBR agents, and other activities. Normally these reports are disseminated direct to the user by the collection agency.

11. Intelligence Summary

a. The intelligence summary (ISUM) is a telegraphic summary of the significant information developed by the command during a specific period and the conclusions on enemy capabilities and vulnerabilities at the end of that period. The ISUM normally is prepared at division and higher headquarters. Smaller units may be required to submit ISUMs

OPERATIONAL IMMEDIATE

ISUM NUMBER 144 ENDING 040600 PARA 3 ALFA AGGRESSOR CONTINUED DEFENSE IN ZONE EXCEPT FOR LOCAL ATTACK AT 0415 VICINITY R376759 WITH ESTIMATED 90 MEN CMM 3 MEDIUM TANKS CMM AND LIGHT ARTILLERY SUPPORT PD ATTACK REPULSED PD PARA 3 DELTA ATTACK SUPPORTED BY 2 JET ATTACK AIRPLANES BOMBING AND STRAFING VICINITY R396756 FOR 5 MINUTES STARTING AT 0425 PD PARA 3 ECHO ATTACK PRECEDED AT 0410 BY VERY HIGH AIR BURST NUCLEAR WEAPON CMM GROUND ZERO R374761 CMM DELIVERY MEANS UNDETERMINED CMM YIELD ESTIMATED AT 0 PD 5 KT PD PARA 4 ALFA CONFIRMED 20 KIA CMM ESTIMATED 5 KIA CMM ESTIMATED 30 WIA PD PARA 4 BRAVO 10 INCLUDING 2 WIA PD PARA 4 CHARLIE 2 MEDIUM TANKS DESTROYED CMM 1 DAMAGED CMM 1 JET ATTACK AIRCRAFT SHOT DOWN PD PARA 6 PRISONER STATES AMMUNITION SUPPLY IN FORWARD UNITS RUNNING LOW PAREN CHARLIE DASH 3 PAREN PD PARA 7 ALFA PATROL REPORTS BATTERY 150 MM HOWITZERS AT R303292 PD PRISONERS CONFIRM LOCATION 2D BATTALION CMM 17 RIFLE REGIMENT VICINITY R375758 PAREN BRAVO DASH 1 PAREN PARA 8 AIRBORNE RADAR RECONNAISSANCE DETECTED 10 TRUCKS MOVING SOUTH ON ROAD AT R330280 AT 0345 PD PARA 9 PROBABLY ROUTINE SUPPLY VEHICLES PD PARA 10 SNOW STARTED AT 040545 AND CONTINUING PD GROUND FROZEN HARD AND SUPPORTS ALL TYPES OF VEHICLES PD PARA 11 LOCAL ATTACK REPORTED PROBABLY WAS TO SEIZE HILL 405 PD ENEMY IS CAPABLE OF CONTINUING DEFENSE IN PRESENT POSITION CMM MAKING LOCAL ATTACKS TO IMPROVE HIS DEFENSIVE POSITION CMM WITHDRAWING TO STRONGER POSITION ALONG LAURIEX RIVER PD PARA 12 CONTINUED DEFENSE IN PRESENT POSITION MOST PROBABLE.

Figure 21. Example of a division ISUM (full distribution not indicated).

by the next higher commander. ISUMs are disseminated to the next higher headquarters, the next subordinate units, and adjacent units by the quickest means, usually teletype. ISUMs cover the periods directed by the next higher headquarters. In active combat, they usually cover 6-hour periods starting at midnight.

b. ISUMs are prepared in accordance with the format shown in appendix VII. In the preparation of an ISUM, intelligence and information not required for operations are excluded. The conclusions on enemy capabilities and vulnerabilities are, as far as practicable, approved by the commander before dissemination.

12. Periodic Intelligence Report

a. The periodic intelligence report (PERINTREP) is a summary of the intelligence situation covering a longer period than the ISUM. It covers the enemy situation, operations, capabilities, vulnerabilities, characteristics of the area of operations, and counterintelligence. It does not contain details of friendly forces which may be of value to the enemy. It is a means for disseminating detailed information and intelligence. Other intelligence documents such as technical intelligence summaries, prisoner of war interrogation reports, translations of captured docu-

ments, and weather and climate summaries may be disseminated as appendices to the PERINTREP. The format for a PERINTREP and an example are in FM 101-5.

b. The PERINTREP is normally prepared at corps and higher echelons. Corps may dispense with the PERINTREP if the situation does not permit timely dissemination. At field army, a PERINTREP always is issued. The PERINTREP is disseminated to the staff, adjacent units, and to the subordinate and higher headquarters at the next two higher and lower echelons. The period covered by the PERINTREP is prescribed by the next higher headquarters. The period varies with the tempo of intelligence activities, and in combat a PERINTREP normally is published every 24 hours. The beginning and ending time of the period is selected to permit dissemination in time for the use of the PERINTREP in daily planning. The PERINTREP is disseminated by the most suitable means considering its volume and urgency, usually by liaison officers or messengers.

c. The PERINTREP is concise but complete and maximum use is made of sketches, overlays, marked maps, and annexes. The use of abbreviations and unnecessary references to map coordinates are avoided.

13. Weekly Intelligence Summary

This report generally follows the format of a PERINTREP. It serves to highlight trends that are useful in planning future operations and in processing current information. These reports may be issued at field army and higher headquarters.

Section III. OPERATION PLANS AND ORDERS

14. Paragraph 1 of an Operation Plan or Order

Paragraph 1a of operations plans and orders gives a summary of the enemy situation necessary for understanding the order or plan if an intelligence annex is not published. If an intelligence annex is not published, paragraph 1a may be a reference to an appropriate current intelligence document such as a specific ISUM or a PERINTREP.

15. Intelligence Annex

The intelligence annex is the formal intelligence order that may accompany an operation order or plan. The first paragraph of an intelligence annex gives a summary of the enemy situation necessary for understanding the order or plan. The paragraph may refer to marked maps, enemy situation overlays, or current intelligence reports. See chapter 5.

Section IV. MAPS

16. General

a. The intelligence officer is responsible for staff supervision of all activities concerning military topographic surveys and maps, including their acquisition, reproduction, storage, and distribution. The unit engineer is responsible for the procurement, storage, reproduction, and distribution of military maps and allied materials, to include trig lists and gazetteers, under the staff supervision of the intelligence officer.

b. Maps are intelligence documents and not normal supply items. Divisions requisition and draw their maps from corps, and not directly from the field army, as with supply items.

17. Map Distribution

a. Changes in tactical plans affect map requirements. The distribution system must respond rapidly to such changes if the required maps are to be provided in time. This sensitivity to the tactical situation demands close staff attention. In fast moving situations, issuing maps to individuals and small units is difficult. The bulk of maps needed to cover a large area makes it impracticable to supply a unit with maps for a prolonged fast moving operation. Logistical limitations prevent the maintenance of large reserves of maps.

b. Paragraph 4 of the intelligence annex to an operation order lists the maps, quantities, and classification or scale to be furnished each unit for the operation, and instructions concerning special requisitions and distribution.

18. Map Requirements Planning

Timely planning insures that sufficient quantities of suitable maps are available when and where needed. Map planning is governed by area of coverage, scales, and allowances for the maps required. The intelligence officer, the operations officer, and the unit engineer plan the unit map requirements. Based on operational plans, the intelligence officer and the operations officer decide on the types and scales of maps to be used. The unit engineer advises on the availability of maps, including types and scales. Unit boundaries are projected by the G3 to indicate the area for which coverage is desired. For tactical units, this area usually extends forward to include at least the area of influence. It is desirable to include coverage of the area of interest. The unit engineer calculates actual map requirements based on this information and allowance tables (par. 21).

19. Area of Coverage

Map coverage is the number of sheets of the same scale required to cover the terrain considered, including coverage of adjacent areas. An armored division in corps reserve usually requires coverage of the entire corps area and the areas of divisions adjacent to the corps. For computation purposes, a map sheet is required by a unit if more than 20 percent of the area of the sheet is in the unit area of operations. Overlap is required for planning and coordination. The number of map sheets required at each scale is determined from a map index. The required map coverage is marked on the index and the sheets included within the area are counted and listed by appropriate identification symbols.

20. Map Scales

Map scale requirements are influenced by the nature of the friendly force, character of the terrain, and type of operations. Small-scale maps are used for general planning and for strategic studies. Large-scale maps are used for technical and tactical needs. Maps covering the area of present and projected operations are of as large a scale as necessary to provide the details required. Coverage outside the unit area of operations usually is of smaller scale.

21. Map Allowances

a. Map allowances are based on tables published by theater or theater Army headquarters or those listed in FM 101-10. Tables specify types of maps and quantities authorized according to map scale and type of unit. These tables, used in conjunction with inventories of available maps, provide a distribution guide for a particular type and scale map.

b. An initial issue of maps is based upon the initial allowances set forth in the tables described above. It is the number of copies of map sheets, by type or scale, which can be requisitioned by units without requiring approval by higher headquarters.

c. A replenishment issue is based upon prescribed replenishment allowances. It includes authorized supplemental issues to cover normal losses. Replenishment requirements are calculated by applying a percentage factor to the number of copies in the initial issue. Emergency issues are made as required to meet unforeseen needs.

EXAMPLE OF A CLIMATIC SUMMARY

CLIMATIC SUMMARY FOR THE MONTH OF JULY 3d CORPS AREA

1. GENERAL CIRCULATION

Generally air flows from the west and northwest. Occasionally warm, dry continental air from Russia causes a relatively intense, dry heat with temperatures 90° or more.

2. TEMPERATURES

Afternoon temperatures generally are in the 70s and morning temperatures are in the 50s. There are occasional periods of hot, dry spells that last more than a week with temperatures in the 90s.

The highest temperature ever recorded was 101°F.

3. THUNDERSTORMS

Occur frequently. They usually develop during the day and reach maximum intensity in the late afternoon and evening.

4. SURFACE WINDS

Average wind speed is 5.8 MPH. The most predominant direction is northeast, with a mean speed of 8.4 MPH. The strongest mean wind is from the east-northeast 10.0 MPH. Calms are frequent occurring 25.2 percent of the time, and usually in the early morning. Calms or near calms often last the whole day.

5. CLOUDINESS

Mornings frequently are clear. Clouds develop by noon and cloud cover reaches a maximum in the late afternoon, decreasing to nil just before sunset.

6. VISIBILITY

Normal visibilities are 7 to 13 miles and occasionally farther. Occasional haze may reduce visibility to about 3 miles.

7. PRECIPITATION

Thunderstorms are the usual cause of precipitation. Occasionally a southwesterly wind will cause continued drizzle and low, overcast skies for 1 to 3 days. This is the only time low visibilities occur.

	Jun	Jul	Aug	Annual	Years recorded
Mean precipitation (inches)	2.56	2.48	2.36	26.97	40
Mean number of days with thunderstorm	4	4	3	18	11

	Jun	Jul	Aug	Annual	Years recorded
Temperature (° F.)					
Absolute max	95	101	97		10
Absolute min	50	43	43		10
Mean daily max	71	74	73		40
Mean daily min	51	55	53		40
Mean number of days with fog	2	2	4	57	11

Percentage frequency of surface winds by direction and
average wind speeds in knots for the month of July

	S	SSW	SW	WSW	W	WNW	NW	NNW	N	NNE	NE	ENE	E	ESE	SE	SSE
Per- centage fre- quency of di- rection	2.1	2.0	8.6	1.0	0.7	0.3	0.4	0.0	1.2	2.1	19.5	10.9	12.2	2.7	9.6	1.0
Average speed by di- rection	5.6	9.4	8.8	7.6	6.8	8.3	3.2	0.0	5.0	6.3	8.4	10.0	7.1	6.6	6.0	4.0

APPENDIX VII

FORMAT FOR AN INTELLIGENCE SUMMARY (ISUM)

NOTE: Omit items not applicable unless otherwise indicated.

1. Issuing unit.
2. Time and date of issue.
3. Summary of enemy activity for period.
 - a. Ground activity.
 - b. Trace of forward elements.
 - c. Potential targets for nuclear weapons.
 - d. Air activity.
 - e. Nuclear activity.
 - f. Other (new tactics, counterintelligence, etc.).
4. Personnel and equipment losses.
 - a. Personnel (KIA, WIA).
 - b. Prisoners of war.
 - c. Equipment destroyed or captured.
5. New obstacles and barriers.
6. Administrative activities.
7. New identifications.
 - a. Units.
 - b. Personalities.
8. Enemy movements.
9. Estimates number and types of vehicles.
10. Weather and terrain conditions.
11. Brief discussion of capabilities and vulnerabilities (always included).
12. Conclusions (always included).

APPENDIX VIII

ANALYSIS OF AREA OF OPERATIONS

Note. The titles of paragraphs correspond with selected paragraphs and subparagraphs of the form for the analysis of the area of operations as given in FM 101-5.

1. Climatic or Weather Conditions

a. This subparagraph of the analysis lists the items of weather information that have military significance. Throughout the *remainder* of the analysis, the weather information is *interpreted* as to its operational effects. For example, winds at low temperatures are interpreted in terms of the wind chill factor and the resulting effects on operations, such as an attack or defense which must face the prevailing winds, or the use of open or closed storage facilities. Appendix IX describes the influence of weather on Army operations. Appendix X describes the influence of weather and terrain on nuclear weapon effects.

b. Light data always are given as it is necessary for the selection of courses of action and the conduct of military activities.

- (1) The beginning of morning nautical twilight (BMNT) and the end of evening nautical twilight (EENT) are the beginning and end, respectively, of enough light for limited visibility. The beginning of morning civil twilight (BMCT) and the end of evening civil twilight (EECT) are the beginning and end, respectively, of adequate light for large-scale operations. At BMNT, enough light, under ideal conditions, is available for infantry to effect close coordination among individuals and to approach an enemy position relatively unobserved. EENT is the last time for enough light for such coordination. As a general rule, visibility at BMNT is about 400 yards. At about halfway between BMNT and BMCT (or EECT and EENT) there is enough light for ground adjustment of close-in artillery fires and air strikes. Visibility also is affected by factors such as weather, position of the observer with respect to the object and sources of light, terrain configuration, and color and reflective quality of clothing, vehicles, and other material.
- (2) Moon phases and other phenomena such as atmospheric conditions and star brilliance, influence night operations. During full moonlight, conditions of visibility sometimes approach that of daylight. Such conditions are anticipated as they influence

friendly and enemy courses of action such as attacks, patrolling, and changes in dispositions at night.

2. Relief and Drainage System

a. Drainage and ridge lines are the basic elements in studying terrain as they clearly indicate the general shape of the ground. A complete study of the relief and drainage includes detailed information about slope, configuration, elevation of ground forms, and depth, width, and condition of banks and bottoms of streams and rivers. These items can be portrayed graphically on maps by various methods including those described below.

b. *Ridgelineing* consists of using lines, usually brown, to show ridge crests. *Streamlining*, using solid blue lines for unfordable streams and broken lines for fordable streams, shows the drainage system at a glance. The more pronounced ridge and drainage lines are emphasized by heavier markings. Stereoscopic examination of the airphoto brings out ridge and stream lines when elevations are not known.

c. *Layer tinting* consists of coloring or shading successive elevations on a map. Different colors are used to show successive elevations, and create a three-dimensional effect. In this manner, the slope and configuration of the ground become more apparent.

d. *Hill-topping* consists of coloring, shading, or otherwise emphasizing the tops of hills and noses to show relative elevations. Although hill-topping can be done easily and quickly, it is less effective than layer tinting.

e. *Contour-shading* consists of darkening the portions of an area which are in shadow from an assumed light source. The degree of slope is generally indicated by the density of the shade. The result gives the impression of a terrain model. Contour-shading is difficult. Some contour-shaded maps are available for issue.

3. Vegetation

Vegetation studies are best presented in the form of colored, or otherwise marked, overlays. A complete vegetation study usually includes—

a. Location, size, and shape of all wooded areas.

b. Type, size, density, and crown cover of trees.

c. Location, size, and shape of natural or cultivated fields to include type and size of vegetation.

4. Surface Materials

These data, if extensive, are best presented in colored or marked overlays. In preparing these data, soil maps made by the agricultural services of various countries are particularly valuable. The information

contained in soil maps can frequently be translated into a trafficability map and a map of areas susceptible to high intensities of induced radioactivity. A trafficability map, based on weather forecasts, and colored or marked to indicate degrees of trafficability, effectively shows areas suitable for cross-country movement.

5. Manmade Features

These data provide detailed information of military significant manmade features. These features, if extensive, are best presented on a map or marked overlays. Manmade features of military significance include—

- a. Roads, to include width and type of surfacing.
- b. Railroads, canals, bridges, dams, tunnels, and underpasses, to include size and type of construction.
- c. Towns and other built-up areas, to include major types of construction.
- d. Manmade defensive works, to include details of construction.
- e. Runways and aircraft landing facilities, to include length, capacity, and type of construction.

6. Additional Characteristics

Only those characteristics which influence the choice of a course of action by either force are included. Only the pertinent data of applicable characteristics which influence the choice of a course of action by either opposing force are listed. Lengthy data are presented in annexes, preferably in tabular form.

7. Military Aspects of the Area

This paragraph analyzes the facts listed in the "General Description of the Area" paragraph and determines their influence on the tactical and administrative support factors that are considered in the selection of a course of action by either force. In the analysis of these factors, the effects of and on nuclear fires, chemical and biological agents, and important devices and equipment used in implementing courses of action are integrated, as appropriate. The tactical aspects of observation and fire, cover and concealment, obstacles, key terrain features, avenues of approach, and the administrative aspects are discussed in the following paragraphs.

8. Observation and Fire

a. Observation depends on conditions of weather and terrain which permit a force to see the enemy either visually or through the use of surveillance devices. The highest terrain in an area usually provides the best observation. The increased use of equipment with line-of-sight characteristics requires the availability of suitable terrain features for

sighting purposes. The capability of employing organic aircraft reduces the requirement to use such terrain. Smoke clouds from materials (vegetation and buildings) set on fire by thermal effects of nuclear weapons obstruct visual and some types of electronic observation. Dust clouds caused by nuclear blast reduce both visual and electronic observation. Other factors that limit or deny observation include smoke, fog, precipitation, darkness, woods, and tall vegetation.

b. Fire, as used in the analysis of the area of operations, includes the field of fire of the weapon and characteristics of weapons delivery systems affected by weather and terrain. For example, gusty surface winds affect the use of free rockets. High, irregular, terrain features may limit the field of fire of weapons. A field of fire is an area that weapons can cover effectively with fire from given positions. Although observation is essential to effective control of fire, the best observation does not always guarantee the best field of fire. An ideal field of fire for flat-trajectory weapons is an open area in which the enemy can be seen and on which he has no protection from the fire of such weapons. Fields of fire can be materially altered by using nuclear weapons. Blast can cause tree blowdown in densely wooded areas, thus obstructing the field of fire, and can create widespread rubble in built-up areas, and crater an open area. Nuclear fires may clear bushy areas and so improve fields of fire.

9. Concealment and Cover

a. Concealment is protection from enemy observation and may be provided by woods, underbrush, snowdrifts, tall grass, cultivated vegetation, darkness, smoke, dust, fog, ground haze, rain, or falling snow. The concealment provided by woods and forests can be eliminated by the use of nuclear weapons. Flying debris from wooded and built-up areas may cause large numbers of casualties from secondary blast effects and from fires caused by nuclear weapons. These areas are converted easily to major obstacles. Isolated woods and communication centers attract surveillance and fire. The use of any built-up or wooded areas for the concealment of large concentrations may be a vulnerability. Smoke and fire resulting from thermal effects may create concealment not otherwise available. With favorable winds, the dust cloud formed in a nuclear burst area may conceal movement and restrict observation. Darkness provides concealment for troop movements but entails the risk of dazzle from nuclear detonations.

b. Cover is protection from the effects of enemy fires and is provided by ditches, quarries, caves, river banks, folds in the ground, shell craters, buildings, walls, railroad embankments and cuts, sunken roads, and highway fills. Defiladed areas which provide protection against non-nuclear weapons do not necessarily protect against effects of nuclear fires. Unless the forward slopes of a terrain mass are very steep, blast

will affect personnel and materiel on the reverse slope because the blast wave follows the configuration of all but the most rugged terrain. When a nuclear weapon is fired over a deep valley, or the valley axis points toward ground zero, the blast effects may be channelized and increase damage. Irregular terrain provides some cover from thermal radiation of nuclear fires. Few buildings are sufficiently strong to withstand all effects of blast and, if not damaged or destroyed by blast, may be damaged by thermal radiation. Foxholes, bunkers, and tunnel type shelters offer the simplest forms of effective cover.

c. Concealment and cover are desirable for both the attack and the defense. If troops can move forward under the concealment of woods, fog, or a moonless night, the chances of achieving surprise are greater. If troops can move protected from enemy fire by ditches, embankments, or walls, the attack will be more effective. A defender seeks to defend behind an area which has cover for the defending troops and concealment for their organization of the ground, but does not offer the enemy covered approaches.

d. The mobility of the command is considered in determining available cover and concealment. Cover and concealment are desirable during troop movements by any means. Routes which afford good cover and concealment reduce the vulnerability of a moving force to detection and to destruction by fire.

10. Obstacles

a. An obstacle is any natural or artificial terrain feature which stops or impedes military movement. Natural obstacles include rivers, streams, canals, lakes, swamps, cliffs, steep slopes, dense woods, jungles, deserts, mountains, cities, and certain types of unstable soil. Artificial obstacles are works of construction and destruction executed to stop or impede military movement. They include minefields, craters, antitank ditches, trenches, abatis, roadblocks, deliberately flooded areas, areas contaminated with chemical and biological agents, extensive rubble, forest fires, tree blowdown caused by nuclear fires, and areas contaminated with residual nuclear radiation. Artificial obstacles can be created quickly by blast (cratering), thermal, and residual radiation effects. Obstacles can be quickly created, strengthened, and sometimes weakened, or eliminated by nuclear detonations. For example, obstacles located within an area contaminated by residual radiation are stronger because of the greater difficulty of eliminating the obstacle.

b. Obstacles to be fully effective must be covered by observation and fire. However, even undefended obstacles may channelize an attacker into concentrations which are easier to detect and are suitable for nuclear attack. Obstacles perpendicular to a direction of attack favor the defender by slowing the enemy, forcing him into concentrations that tend

to occur while crossing obstacles, and holding the attacker for a longer time under the effective fires of the defense. Obstacles parallel to an axis of advance may give the attacker flank protection. However, parallel obstacles may interfere with lateral movement and coordination.

11. Key Terrain Features

a. A key terrain feature is any locality or area whose seizure or control affords a marked advantage to either opposing force. Key terrain features are selected to indicate areas and localities whose seizure or control must be considered in formulating and selecting courses of action. The selection is based on the mission of the command. Those terrain features are selected which in our control give us a marked advantage in the accomplishment of our mission, or which if seized or controlled by the enemy hinder materially the accomplishment of the mission. For example, a bridge over an unfordable river may give access to the opposite shore without requiring an assault crossing. Control of a road or rail center may reduce the enemy's ability to resist our advance. A level clearing in rough terrain may be the only accessible landing field for air-mobile operations. Key terrain varies with the level of command. For example, to an army commander, a large city may afford marked advantages as a communications center, but to a division commander, the high ground which dominates the city may be more important, and the city itself may be an obstacle. Obstacles are rarely key terrain features. The high ground dominating a river rather than the river itself, is usually the key terrain feature for the lower unit commander.

b. Key terrain, in addition to influencing the mission accomplishment, is also highly significant in applying combat power. Control is not insured only by seizure and occupation. Seizure and physical occupancy of key terrain features by relatively large forces may not be feasible. Destructive fires delivered by long-range means can destroy forces physically occupying key terrain. The commander controls key terrain and avoids destruction of his forces while keeping the enemy from gaining control. Control includes maneuver, surveillance, security, and use of fires. Terrain which permits or denies maneuver may be key terrain. Tactical use of terrain often is directed at increasing the capability for applying combat power and at the same time forcing the enemy into areas which result in reduction of his ability to apply his combat power. Terrain which permits this also may be key terrain. The effect of terrain on maneuver, application of combat power, and preservation of force integrity are considerations in selecting key terrain, its control, and tactical use.

c. In the offense, key terrain features are usually forward of the friendly dispositions and are often assigned as objectives. However, terrain features in adjacent sectors may be key terrain features if their

control is necessary for the continuation of the attack or the accomplishment of the mission. If the mission is to destroy enemy forces, terrain may be selected whose seizure helps insure the required destruction. If the mission is to seize or secure an area, terrain is selected which insures control of the area. Terrain which gives the enemy effective observation along an axis of advance to be used by the friendly forces may be key terrain if the enemy must be denied its possession or control. Key terrain may be within friendly territory when its control is essential to the success of an offensive operation. For example, if the enemy can attack before our attack and seize or control a terrain feature which prevents or hinders the launching of our attack, then the control of that terrain feature affords us a marked advantage and it is key terrain.

d. In the defense, key terrain features are usually within the assigned sector and within or behind the selected defensive area. These features are normally—

- (1) Terrain which gives good observation over avenues of approach to and into the defensive position.
- (2) Terrain which permits the defender to cover an obstacle by fire.
- (3) Important communication centers which affect command, communications, and the use of reserves.

e. Key terrain features also may be forward of the defensive area or in adjacent sectors. For example, a terrain feature forward of the edge of the battle area, or in an adjacent sector, which gives the enemy good observation over defended localities, communication routes, or enemy avenues of approach, is a key terrain feature when active measures must be taken to reduce the enemy advantage. The defender may move his position forward to include the feature or take action to minimize the enemy advantage by the use of fire, chemicals, smoke, concealment, and cover.

12. Avenues of Approach

a. An avenue of approach is a relatively easy route for a force of a particular size to reach an objective or key terrain. To be considered an avenue of approach, a route must provide some ease of movement and enough width for dispersion of a force of a sufficient size to affect significantly the outcome of the operation. The division G2 usually considers avenues of approach adequate for at least a regiment or a battle group or a combat command. The corps and higher G2 usually consider avenues of approach adequate for at least a division. In determining the width for dispersion, consideration is given to the deployment patterns, mobility means, and the area required for maneuver to prevent presenting lucrative targets for nuclear fires.

b. A valley approach gives the advancing force some cover from enemy direct fire and some concealment from enemy observation. A

valley approach includes the floor of the valley, the slopes of the ridges, and the military crests. Control of the military crests on each side of the valley is essential. In a valley approach, the best axis of advance is that which offers the best observation, cross-country trafficability, road net, fields of fire, concealment and cover, and dispersion. In evaluating the use of a deep valley approach, the possible intensification of nuclear effects and resulting greater casualties on the valley floor are considered. At times, the best axis may be along the slopes of a ridge below the military crests, rather than along the valley floor.

c. The use of a ridge approach depends upon the width and shape of the ridge, the size and deployment of the units involved, and the distance to and the elevation of adjacent ridges. A ridge approach usually has the advantage of placing the axis of advance along good observation. However, there may be little protection from enemy fire on to the ridge. The best axis of advance in a ridge approach is often slightly below the topographical crest, with sufficient force on the crest to control it.

13. Air Avenues of Approach

a. An air avenue of approach is a route which provides a suitable flight path for a particular number of aircraft to reach a drop or landing zone. To be considered an air avenue of approach, a flight path must afford some ease of movement for a force of sufficient size to produce a significant effect on the operation. In selecting air avenues of approach the major considerations are adequate air space for rapid movement of the aircraft to landing or drop zones, ground observation, easily recognized terrain features, terrain corridors, and length of the flight path.

b. In selecting avenues of approach for tactical helicopter operations, the major concern is concealment. Routes selected provide defilade and are easy to follow; therefore, navigation at low altitudes is not a problem. Ridge lines are crossed as infrequently as possible to reduce exposure time to radar detection. Steep defiles or canyons are avoided, especially when there is an appreciable amount of surface wind because momentary loss of aircraft control occurs from downdrafts. Heavily forested and swampy areas provide good routes as ground troops have little opportunity to see, or to take under fire, the helicopters passing overhead at treetop level. Low altitude operations over heavy foliage distort the acoustic wave from aircraft and decrease the distance at which the sound can be detected. It also hampers determination of the direction of the noise source by ground observers. Aviation officers assist in evaluating the effect of air density, altitude, and visibility on selected avenues of approach.

14. Administrative Aspects

a. The analysis of the facts and subconclusions developed in the preceding parts of the analysis are further studied for their effects on

ANNOTATED EXAMPLE OF A WRITTEN ANALYSIS OF AREA OF OPERATION

Classification is centered at the top and bottom of each page. For training documents, classification is indicated in this manner.

Analyses are numbered successively throughout the calendar year.

References list maps, charts, or other documents required to understand the analysis. References to maps include the country or geographical area and/or map series number, edition (if required), scale, and map sheet name and number.

The time zone, if required, is listed here. In addition, all date-time groups have a suffix to identify further the time zone, if required.

Paragraph 2 is a listing of pertinent facts for use as a basis for the succeeding paragraphs.

Paragraph 2a lists or refers to other documents containing, for the period under study, meteorological conditions, to include precipitation, fog, cloud conditions, temperature, relative humidity, surface winds, effective winds (or winds aloft), atmospheric pressure, light data to include moon phases, moonrise and moonset, and other geodetic data as appropriate. When appropriate, include magnetic phenomena.

Describe configuration of the ground including slopes for personnel and vehicles and critical relief for equipment dependent on line of site. Configuration and conditions of streams, including depth, slope, and condition of banks and bottom, and location of crossing sites. Named localities are located by grid coordinates the first time they appear in the analysis. Grid coordinates are repeated only if required for ease of reference.

Paragraphs 2c, d, e, etc. Consider as pertinent in separate subparagraphs: sociology, politics, economics, psychology, and other characteristics. Other characteristics may include such items as science, materiel, transportation, manpower, hydrography, etc. Under each of these characteristics considered, list all facts as they pertain to the area of study and which may influence friendly and enemy courses of action. The degree of coverage required of these characteristics varies with the mission and other aspects of the operational environment. These characteristics are particularly important to theater administrative units and to all units in situations short of war and are of increasing importance as the area of interest of a command increases.

(Classification)

Copy Nr 2
1st Corps
BARDOI (187438), NESHUMA
111200 June 19
SB 2

ANALYSIS OF AREA OF OPERATIONS NR 7
Reference: Map, NESHUMA, 1:100,000, BRIGITA.
1. PURPOSE AND OTHER LIMITING CONSIDERATIONS
a. Purpose. To analyze the area within the corps zone from vicinity WYLA (2157) northwest to and including the POTAPAWI Canal.
b. Mission. 1st Corps attack 140430 June; seize high ground 2140-2857; destroy enemy in zone; deny area south of POTAPAWI Canal to the enemy; protect army east flank.
2. GENERAL DESCRIPTION OF THE AREA
a. Climatic or weather conditions.
(1) Climate. (Annex A, Climatic Summary.)
(2) Weather forecast, 12 June--15 June.
(a) Precipitation. None predicted.
(b) Fog. None predicted.
(c) Temperature. From 72° to 85°F.
(d) Wind. Surface winds from the south 7 to 9 miles per hour. Mean effective wind for yields of tactical interest about 15 knots from the south.
(e) Cloudiness. None predicted.
(f) Atmospheric pressure. Average about 980 millibars.
(g) Moon. New moon: 19 June.
(h) Light Data.

DATE	BMNT	BMCT	BEET	EENT	MOONRISE	MOONSET
13 June	0329	0440	1933	2038	2024	0608
*	*	*	*	*	*	*
16 June	0332	0446	1939	2037	2137	0901

b. Terrain.
(1) Relief and drainage systems. (Annex B, Relief Overlay.) Area is drained by the ISHO River on the east and northeast and by the ZOSHA River on the south and southwest. The ridge from Hill 406 (1449) to ROTZ (2254) generally bisects the area. The major spurs of this ridge run generally east and west. The terrain is generally rolling with a series of sharply rising tablelands. The KILRA, ISHO, and ZOSHA Rivers and the POTAPAWI Canal are unfordable. The ISHO River north of BRIGITA averages 30 meters wide and 2 meters deep. The ZOSHA River averages 15 meters wide and 2 meters deep. The POTAPAWI Canal has steep banks about 3 meters deep and is about 18 to 22 meters wide at the top of the banks. All other rivers and streams are fordable, varying from 1 to 6 meters wide and about 14 inches deep.
(2) Vegetation. (Annex C, Vegetation Overlay.) Vegetation consists of growing crops, pasturelands, and wooded areas (Type II). Underbrush has been cleared throughout the area. Roads and stream banks are generally bordered with trees. Small, scattered patches of trees are found in the lowland plains.
(3) Surface materials. Surface material consists primarily of thick clayey soil, with low sodium content (Type II), on a hard limestone base. Above 200 meters elevation, with few exceptions, the soil is capable of supporting heavy wheeled and tracked vehicles. The rains do not seriously affect trafficability. Below 200 meters elevation, and in stream bottoms, the soil is capable of supporting only light tracked or wheeled vehicles moving singly and it becomes impassable where the turf has been destroyed, or where vehicles travel in column.
(4) Manmade features. The principal roads, north-south through BLIPP (1557) and BARDOI and east-west through BRIGITA and TACO (1451), are hard surfaced and 7 meters wide. The area is covered with an extensive network of secondary roads. All bridges on regularly maintained roads are two-way class 50. Villages consist of closely grouped buildings of brick or stone. Aggressor has constructed extensive field fortifications and artificial obstacles throughout the area he occupies south of the POTAPAWI Canal. The artificial obstacles, primarily minefields and wire entanglements, are most extensive in the ZOSHA River valley and in the general area 1058-1268. Small coal mines are scattered throughout the area.
c. Sociology.
(1) The area is mostly rural. The farm villages have present populations of less than 100 each. The farmers are mostly workers on large farm properties recently confiscated by the Circle Trigon Government. The large towns in the area, listed below with present population, are market and mining centers.

BRIGITA	15,000
*	*

(2) The political and economic instability that preceded the seizure of power by the Circle Trigon Party resulted in lowering of moral standards and breakdown of family control. Petty thievery, pilfering, and bribery are accepted ways of life. Juvenile delinquency by both males and females is common.
d. Economics.
The economic instability of NESHUMA and last year's crop failure have resulted in near starvation conditions. Present crops ripen in September. Black marketing and barter are the major types of trade. Aggressor ration controls are ineffective as there is little food or goods to be obtained through regular trade channels.
e. Psychology.
(1) The local population consists mostly of semi-illiterate farmers and miners who are highly responsive to verbal and pictorial mediums appealing to their love of earth and country. They are distrustful of strangers and quick to violent anger when property is apparently needlessly destroyed.
(2) Except for a fanatic core of Circle Trigon officials, the local population is hostile to the Circle Trigon regime. This hatred has been fed by the ruthless land confiscation of the regime and the civilian labor impressment policies of the Aggressor forces. The local population expects the UN forces to restore farm property immediately to their original owners.

(Classification)

Copy number assigned by issuing headquarters official designation of unit. Physical location of command post by, coordinates, state, or country.

Date-time group when the analysis is signed.

Message reference number--used when the analysis is distributed outside the headquarters for the purpose of acknowledgment in the clear. All appended material to the analysis having the same distribution bears the same reference number.

Paragraph 1a states the exact limits of the area being studied.

Paragraph 1b states the mission and any other limiting considerations such as time limitations, the commander's plan of action and enemy capabilities.

Paragraph 2b. Makes maximum use of special colored maps or overlays. Under each characteristic include facts to assist in subsequent determination of the effects of the characteristic on the use of nuclear weapons, chemical and biological agents, important devices and equipment used in implementing courses of action. (Do not include here the interpretation of these effects on friendly or enemy possible courses of action.)

Indicate wooded areas, including type, location, size, and shape of trees, diameter of trunks, density, crown cover, undergrowth. Include types of natural and cultivated vegetation of nonwooded areas.

Indicate type and distribution of soils and subsoils in the area and soil trafficability. Include soil content as it affects induced radiation. Use overlay if material is extensive.

Indicate roads, railroads, bridges, tunnels, mines, towns, industrial areas, and fortifications, and other features of military significance. Include type of construction.

(Classification)
(Analysis of Area of Op Nr 7--1st Corps)

3. MILITARY ASPECTS OF THE AREA
a. Tactical aspects.

Paragraph 3. Analyze the facts in the previous paragraph to determine their influence on factors affecting tactical and administrative support activities that are considered in the development of specific courses of action. The extent of the analysis depends on the mission, the means available to accomplish the mission, and the possible means the enemy can use to prevent the accomplishment of the mission. In considering the factors under each aspect, include the effects, as appropriate, of and on nuclear fires, chemical and biological agents, and important devices and equipment used in implementing courses of action.

Paragraph 3a. Consider the effect that the area will have on observation, fire, concealment and cover, and obstacles; and determine key terrain features and avenues of approach.

Indicate graphically or describe the influence of weather, relief, vegetation, surface materials, manmade features, and other pertinent characteristics. Effects of and on nuclear fires, chemical agents, etc., are included as are any marked effects on surveillance devices, equipment based on line of sight, and fire delivery means. Effects on fire includes effects on delivery means, fields of fire, and effectiveness of fires. Observation and fire is of concern to administrative support units as it influences rear area security considerations.

- (1) Observation and fire.
 - (a) Weather conditions. Weather permits good air and ground observation. Continued dry weather will increase dust clouds caused by nuclear weapons and reduce observation for a significant period in nuclear target areas. Weather favors our use of smoke, but not Aggressor's use of smoke.
 - (b) Relief. From the Aggressor-held high ground, observation over approaches into his position is excellent. The Aggressor-held hills west of the KILRA and ISHO Rivers dominate the western part of the area. High ground vicinity Hill 408 (1342) gives Aggressor excellent observation to the southwest, west, and north. The corps objective, with the spur extending south, gives Aggressor excellent observation over all approaches leading directly to it. Fields of fire for flat-trajectory weapons are generally short and good, and excellent in valley bottoms and from the military crests of open hill tops. The excellent fields of fire on the southern slopes of DANKO Woods ridge and Hill 406 and from the southern slopes of the corps objective favor Aggressor defense. Long-range fields of fire to the north from DANKO Woods ridge favor our attack after we have gained this area. Fields of fire for high-angle weapons are good throughout the area.
 - (c) Vegetation. Within wooded areas, fields of fire for flat-trajectory weapons are restricted to trails and roads. Vegetation restricts ground level observation. Forest fire smoke clouds will reduce observation throughout the area.
 - (d) Manmade features. Village church steeples are high enough to serve as excellent observation points.
- (2) Concealment and cover.
 - (a) Relief. The rolling terrain affords partial cover and concealment from ground observation. The rolling terrain and numerous folds in the ground will provide some protection from thermal effects of nuclear bursts.
 - (b) Vegetation. IVAR Forest (1863) offers excellent concealment for large units. Woods throughout the area afford some protection from thermal effects due to thick deciduous cover being in full leaf.
 - (c) Manmade features. Buildings in the area offer some cover from small-arms fire and shell fragments but do not protect from blast to any significant degree.
- (3) Obstacles.
 - (a) Relief. Terrain favors Aggressor use of persistent toxic chemicals in the valley forward of his present position. Drainage system consisting of KILRAY, ISHO, and ZOSHA Rivers and POTAWI Canal.
 - (b) Vegetation. Woods, especially the IVAR Forest, will become obstacles in the event of blowdown or if set afire and favor the use of persistent chemicals. Cultivated areas will limit wheeled vehicles.
 - (c) Surface materials. In stream bottoms and below 200 meters elevation, the wet soil will magnify the cratering effects of subsurface nuclear bursts and will support off-road vehicular traffic except for movement of single light vehicles.
 - (d) Manmade features. Extensive artificial obstacles consisting of minefields and wire, are located on the west flank and in the area 1355--1657. This hinders movements and limits use of avenues of approach in these areas. Except for BRIGITA, buildings and villages do not present any significant obstacles even if destroyed by blast.
- (4) Key terrain features.
 - (a) GRILLVAR Hill mass (2041). This terrain feature controls the avenues of approach in the western part of the corps zone. It is key terrain if our plan of attack calls for a main effort in that area or if a secondary effort in that area must progress south of it to ensure success of the main effort.
 - (b) Hill 390 (1310) and Hill 421 (1820). If the enemy attacks before we do and seizes or controls either or both of these hill masses, it will prevent, or at least seriously hinder, the launching of the corps attack.
 - (c) TNOMYEH-NAOJ Ridge. This ridge controls the area immediately south of the POTAPAWI Canal and all the major crossings over the canal. The mission cannot be accomplished without seizure of this terrain.

Indicate graphically or describe natural and artificial obstacles and the influence of relief, weather, vegetation, surface materials, and manmade features. Effects, as appropriate, of and on nuclear fires, chemical and biological agents and effects on trafficability and accessibility are included. If of significant influence, the effect of each obstacle on possible friendly and enemy courses is indicated. Obstacles and trafficability influence site locations for administrative support units.

Avenues of approach are developed from all the previous analysis of the tactical aspects. Such development does not consider the dispositions of enemy forces. An avenue of approach must afford some facility of movement and room for adequate dispersion for a force large enough to have a significant effect on the outcome of the operation. When either opposing force has available an adequate number of aircraft which can be used to deploy troops and equipment forward of the battle area and significantly affect the accomplishment of the mission, air avenues of approach may be listed. If terrain and weather conditions do not significantly influence choice of flight paths, then air avenues of approach are not listed. Enemy avenues of approach are listed first, followed by a list of our avenues of approach into the enemy battle area. When the opposing forces are not in close contact, or when only security forces are in contact, avenues of approach to the battle area for both forces are listed. Each listing of an avenue of approach is accomplished by a brief discussion to provide a basis for subsequent development of possible courses of action by either force. For administrative support units, the discussion of avenues of approach is based on rear area security requirements.

- (5) Avenues of approach.
 - (a) Available to Aggressor into our position.
 - 1. Axis IRVE (2358)--OLIRI (1832)--Hill 390. This approach is wide enough for at least two regiments with adequate dispersion. It leads almost directly to a key terrain feature, crosses few obstacles, and has good trafficability and a fair road net.
 - (b) Available to us into Aggressor's position.
 - 1. Axis Hill 398 (1138)--ALEXO (2042)--TNOMYEH-NAOJ Ridge. This approach is wide enough for at least one infantry division with adequate dispersion. It is a valley approach until ALEXO is reached. The valley floor in the vicinity of ALEXO is partially blocked with minefields. When ALEXO is reached, high ground is retained all the way to the corps objective. The road net is excellent and there are no trafficability problems.
- b. Administrative support aspects.
 - (1) Personnel. Sociological characteristics adversely affect discipline, law and order, utilization of civilian labor, and security of installations.
 - (2) Logistics. Sociological characteristics adversely affect security of supply installations. Economic characteristics may impose additional logistical burdens. Mines in the area may be sources of construction equipment and materiel.
 - (3) Civil affairs. Sociological, economic, and psychological characteristics create problems in control of civilians to prevent interference with operations and to maintain security. Dissemination of instructions to civilians will require special measures.

Paragraph 3b analyzes the facts listed in paragraph 2 and the subconclusions developed under tactical aspects. Indicate those facts and subconclusions which significantly affect administrative support activities influencing choices of possible courses of action by either force or by requiring special activities to ensure adequate support. Omit any activity that is not significantly influenced.

Logistics is of particular importance when weather and terrain conditions are severe, when the area of operations imposes additional logistical requirements and has significant resources of military value, and political and economic conditions are unsettled. Coverage is particularly detailed for those commands accomplishing their mission by logistical support of other units.

Civil affairs is of particular importance in situations short of war, limited war, occupation operations, and when extensive civil affairs responsibilities have been assigned to the command. It is particularly important to tactical units when the numbers of civilians in the area present control problems and restrict use of firepower. Coverage is detailed for those commands with extensive civil affairs responsibilities.

Personnel management is of particular importance when weather and terrain conditions are severe, when the area of operations has a significant population and potential labor forces, and when political and economic conditions are unsettled.

(Analysis of Area of Op Nr 7--1st Corps)

4. EFFECTS OF THE CHARACTERISTICS OF THE AREA

a. Effect on enemy courses of action.

(1) Effect on enemy defense.

(a) Aggressor-held terrain favors defense in depth to the corps objective with main defenses in the GRILLVAR Hill and TNOMYEH--NAOJ Ridge areas. Aggressor has excellent observation over all avenues of approach and his flanks are protected by the rivers on the east and by the river and artificial obstacles on the west. The best avenues of approach to these area are ***.

(b) The excellent visibility permits Aggressor to make maximum use of his supporting fires.

(2) Effect on enemy attack.

(a) Aggressor's best avenue of approach is the axis IRVE--OLIRI--Hill 390.

(b) Excellent visibility limits unobserved Aggressor movements toward our positions except during darkness. Lack of precipitation favors cross-country mobility.

(3) Effect on enemy air. Weather favors the Aggressor use of air. Terrain favors Aggressor use of air-delivered nuclear weapons as long as he controls DANKO Woods ridge.

(4) Effect on enemy use of nuclear weapons. Weather favors use of nuclear weapons. Effective winds do not favor use of fallout from nuclear weapons.

(5) Effect of enemy use on chemical warfare. Weather conditions do not favor use of toxic chemicals. Terrain favors use of persistent toxic chemicals in the valley forward of his present defensive position. Extensive wooded areas also areas also favor use of persistent toxic chemicals.

b. Effect on our courses of action.

(1) Our best avenue of approach is axis Hill 398--ALEXO--TNOMYEH--NAOJ Ridge.

(2) Weather and terrain do not favor our attack. They restrict our ability to maneuver toward the Aggressor positions without being observed except during darkness. The lack of precipitation favors cross-country mobility except below 200 meters elevation.

(3) Weather favors our use of nuclear weapons. The rolling terrain and the numerous folds provide some protection from thermal effects of nuclear bursts. Wooded areas are dry and easily set on fire. Soil composition does not favor the production of high intensities of induced contamination. Winds aloft favor our use of fallout from nuclear weapons.

(4) Weather conditions favor our use of toxic chemicals.

Acknowledge.

Acknowledgment instructions included if distributed outside the headquarters. Normally, the single word "acknowledge" is sufficient.

HAY
Maj Gen

The name and grade of the commander appear on the second and all subsequent copies of the analysis if distributed outside the headquarters. If not distributed outside the headquarters, it is signed by the intelligence officer.

Paragraph 4 contains the conclusions developed in the previous paragraphs. The conclusions are stated in terms of effects on the general courses of action available to both forces.

List in turn each significant possible enemy course of action such as attack, defense, withdrawal, use of air, armor, nuclear fires, chemical and biological agents, guerrillas, etc. Each listed course of action (using separate subparagraphs) is accompanied by a discussion, to indicate the characteristics of the area favoring or not favoring the course of action. For attack courses of action, indicate the best avenue of approach. For defense courses of action, indicate the best defense areas and, if appropriate, the best avenues of approach leading to the defense areas.

List in turn those broad courses of action which will accomplish or facilitate the accomplishment of the mission, such as attack or defense withdrawal, or use of air, armor, nuclear fires, chemical and biological agents, and guerrillas. Each listed course of action is discussed in the same manner as enemy courses of action.

Annexes are listed by letter and title.

Annexes: A--Climatic Summary
B--Relief Overlay
C--Vegetation Overlay

Distribution usually refers to a standard distribution.

Distribution: A

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/s/ Seabrook
SEABROOK

This authentication only if the analysis is distributed outside the headquarters.

both friendly and enemy administrative support activities. In this subparagraph the effects of the characteristics of the area on administration that influence the selection of a course of action by either force are determined.

b. In studying the influence of the area, consideration is given to effects on matters such as availability of adequate routes for lines of communication, facilities for maintenance and storage, construction resources, public health situation, required shelter for administrative facilities, availability of labor, maintenance of discipline, law and order, and control of refugees.

15. Effects of Characteristics of the Area

This paragraph contains the conclusions reached on the basis of the facts and subconclusions previously developed. The effects of the characteristics of the area of operations on each significant course of action of which the enemy is physically capable and which, if adopted, affect the accomplishment of our mission are discussed. Usually, the discussion includes as a minimum, effects on the enemy's ability to defend and on his ability to attack. It also includes, as appropriate, the effects on the enemy's ability to delay, use his reserves, amphibious or airborne forces, nuclear fires, guerrilla forces, chemical and biological agents, cover and deception, surveillance devices, or to conduct special operations, and support his forces administratively. The discussion of the effects on our courses of action is limited to those required for the accomplishment of the mission.

APPENDIX IX

INFLUENCE OF WEATHER ON ARMY OPERATIONS

1. Effects on Personnel

Weather has direct effects on the physical wellbeing and emotional state of personnel. Physical disabilities such as heat exhaustion, frost-bite, snow blindness, and mountain sickness are caused directly by weather conditions. Through their influence on metabolism, level of physical activity, and mental state of the individual, weather conditions influence the individual's level of resistance to many diseases. Many diseases, such as the cold and pneumonia, have a seasonal pattern of occurrence. Prolonged exposure to extremes of temperature and humidity, to heavy or prolonged precipitation, to high winds, and to other harassing weather influences increases the physical and mental strain on personnel. This adversely affects physical, mental, and emotional conditions and lowers morale and efficiency. The incidence of communicable disease also is affected by weather through influence on the distribution of disease-causing and disease-carrying agents.

2. Effects on Equipment and Supplies

Weather may cause damage or destruction to supplies and equipment.

a. Precipitation or high humidity may cause rotting or mildewing of rubber, leather, cloth, and rope.

b. Humid conditions with high temperatures cause rapid deterioration of some types of electrical insulating material and cause corrosion of exposed metal such as small arms and artillery pieces.

c. Materials, such as wood, paper, and leather, are sensitive to extremes of humidity. Others, such as sugar, tobacco, and glue, have critical humidity levels beyond which they lose desirable properties.

d. Many products such as food, medicine, film, and photographic chemicals require special handling in areas where extremes of temperature and/or humidity are encountered.

e. High winds may damage or destroy many types of unprotected equipment. Blowing sand and dust may damage painted surfaces and equipment such as engines and weapons.

3. Effects on Natural Features

Weather conditions affect natural features of the environment. Some of the most important of these are—

a. Soil trafficability is affected by precipitation, air and soil temperature, wind, and humidity.

b. The amount of precipitation, coupled with the runoff factor and, at times, with the amount of snow and ice thaw, controls stream levels and produces floods. Temperature controls freeze and thaw of snow and ice and the times of winter freezes and spring breakups of ice on bodies of water.

c. Snow cover affects concealment and mobility characteristics of terrain for personnel and vehicles.

4. Effects on Manmade Features

Weather affects such manmade features as lines of communication, wire communications, facilities, structures, and installations.

a. Lines of communication, such as railways and highways, may be seriously affected by heavy accumulations of snow, by heavy or prolonged precipitation, and by frost action in the soil.

b. Wire communications may be affected by heavy accumulations of snow, formation of ice on wires, strong wind, and frost action in the soil.

c. Buildings and other installations may be affected as follows:

- (1) Heavy snow accumulations may collapse roofs.
- (2) High winds, tornadoes, hurricanes, or severe thunderstorms may damage or destroy structures.
- (3) Frost action may damage surfaced runways.
- (4) Hail may break exposed glass, plexiglass, and similar materials.
- (5) High temperatures may be injurious to paint.
- (6) Heavy or prolonged rains may weaken foundations, and flood subterranean and other installations constructed in low-lying areas.

5. Influences on Tactical Activities

For the purpose of this discussion, tactical activities are grouped into three categories: acquisition and exchange of information; consumption of supplies, and modification of environment. Each of these categories of activity is influenced by weather. The effects of weather on nuclear fires are discussed in appendix X.

a. Acquisition and exchange of information involves reconnaissance and communication. Information concerning the enemy and the area is procured by means of ground or air visual observation, aerial photographs, listening posts, sound ranging, radar, infrared, and other means.

- (1) Visual observation is affected adversely by fog, smoke, dust, haze, and precipitation. Visual observation from the air is

hindered or prevented by clouds between the observer and the object or area observed.

- (2) The above factors apply in aerial photography. In addition, dense clouds may reduce illumination to a point where photography is difficult or impossible. However, a high, thin layer of cloud may make photo reconnaissance easier by reducing ground shadows. Reflection of sunlight from a snow surface may make obtaining clear photographs difficult.
- (3) Effectiveness of listening posts is decreased by weather conditions such as thunder, heavy precipitation, and high winds which decrease audibility.
- (4) Sound-ranging operations are affected by changes in weather factors, such as temperature, humidity, and wind.
- (5) Radar is affected by vertical distribution of temperature and moisture in the atmosphere. Clouds and precipitation also influence radar by producing "clutter" which obscures echoes.
- (6) Wire communications are affected by electrical discharges in the atmosphere. Excessive ground moisture may reduce the range of field wire circuits using battery-operated telephones.
- (7) Low frequency radio is affected by electrical discharges. VHF and UHF radio is subject to anomalous propagation resulting from certain moisture and temperature distributions.
- (8) Messengers are affected by many weather factors, and their ability to move is also subject to weather effects.
- (9) Visual communication is affected by obstructions to vision such as fog, clouds, dust, haze, and precipitation.

b. Movement involves air or surface transport of personnel, equipment and supplies.

- (1) Movement by air is affected by clouds, visibility, temperature, and surface winds at terminals, and by clouds, visibility, temperature, wind turbulence, icing, and other hazards occurring over routes.
- (2) Surface movement is affected by trafficability, conditions of line-of-communication features, and visibility. Each is subject to the effects of weather conditions.

c. Weather influences the use of weapons by affecting delivery capabilities and by influencing the terminal effects of the fires.

- (1) *Effects on delivery capabilities.* Artillery fire is affected by powder temperature (as it affects muzzle velocity), wind, air density, and air temperature (as they affect trajectory). In the use of free rockets and guided missiles, wind affects range, and also may alter initial path. Use of smoke generators depends upon wind direction and speed.

(2) *Influence of weather on terminal effects of fires.*

- (a) Precipitation decreases the effectiveness of incendiary munitions. Strong winds increase their effectiveness.
- (b) Chemical and biological agents are disseminated as gas clouds of small particles or liquid droplets. The concentration of these clouds at a given point is influenced by wind speed and direction and vertical temperature gradients. In addition, the effectiveness of some of these agents is influenced by humidity, temperature, and precipitation. For a more detailed discussion of the effects of weather on chemical agents, see TM 3-240.

d. The effectiveness of certain types of special equipment is influenced by weather.

- (1) Clouds and obstructions to vision affect searchlight activities. Low clouds provide a reflecting surface which increases the effectiveness of searchlight illumination. Dense fog, precipitation, or other obstructions to vision decrease searchlight effectiveness by scattering and diffusing light.
- (2) The use of loudspeakers in psychological warfare is affected by any weather element which reduces audibility.

e. The rate of consumption of most supplies (fuel oil and food) is directly influenced by weather conditions.

f. A great variety of activities related to strengthening defensive positions, facilitating movement, and obstructing enemy movement are performed by tactical forces. Included are such activities as construction of emplacements and fortifications, mine-laying, and construction of roads, airstrips, and other such facilities. Weather affects the speed with which such tasks can be completed and may provide concealment for forces carrying out such tasks near the enemy.

- (1) Emplacements must be designed to withstand the weather. Alternate freezes and thaws of the soil prevent using materials which peel, scale, or crack. Prolonged or heavy rainfall softens the ground so that special foundations, bracing, and drainage are necessary to prevent cave-ins and flooding. Heavy rains or severe freezes slow or stop excavation work.
- (2) Rains may make mine-laying operations easier by softening the ground. Severe freezes may make digging difficult, thereby increasing the time required for laying minefields. Concealment of mines is difficult after a snowfall. However, falling snow quickly obliterates tracks and signs of digging.
- (3) Amount of rainfall affects plans for foundations and drainage systems for roads, airfields, and similar facilities. In addition, weather during actual construction influences methods used and time required for completion of work.

APPENDIX X

INFLUENCE OF WEATHER AND TERRAIN ON NUCLEAR WEAPON EFFECTS

1. General

Weather and terrain influence nuclear weapons delivery systems and the effects of nuclear weapons. The influence upon delivery systems is not covered in this appendix.

2. Temperature

a. Temperature has no predictable effect on blast. Temperature may affect the target vulnerability as lower temperatures may cause personnel to seek shelter. Extremely low temperatures may affect the strength of certain metals and plastics by making them more sensitive to blast damage.

b. Temperature has no significant effect on thermal radiation, but may affect target vulnerability. Temperature affects the amount and type of clothing that personnel wear, which in turn directly affects vulnerability of troops to thermal radiation. Troops dressed in winter field uniforms, including gloves and some covering for face and neck, are better protected from flash burns than are troops in normal summer uniforms. Prolonged high temperatures in dry weather may, by dehydration, make target elements more sensitive to thermal radiation.

c. Temperature may significantly affect nuclear radiation, since relative air density depends on air temperature and barometric pressure. Depending on other circumstances, temperature may possibly be a factor in determining the vulnerability of troops to radiation in that it may affect the type of shelter in the target area. The value of any structure as a shield against nuclear radiation is determined by the amount of material between the source of the radiation and the individual. Ordinary frame barracks and tents offer very little protection from nuclear radiation, but heavy logs, earth shelters, and basements of buildings offer substantial protection. Clothing offers no protection against nuclear radiation.

3. Visibility

a. Visibility has no effect on blast or nuclear radiation. Visibility has a pronounced effect on thermal intensities. Maximum thermal effect is

realized on a very clear day. Any haze, mist, or fog reduces this effect in proportion to the reduction in visibility. Consequently, a smoke blanket or smoke haze over a target area is a defensive measure.

b. Visibility also determines the distance to which personnel may be subjected to temporary dazzle. Dazzle from a daylight burst does not last more than 5 minutes and generally is not an important factor under daylight conditions. However, even temporary blindness is critical for pilots and drivers. When the eye is focused on the fireball, particularly when optical equipment with light-gathering properties is being used, retinal burns, with some permanent loss of visual acuity, can be caused at great distances. Dazzle is important at night when the pupil of the eye is dilated.

4. Precipitation

a. Precipitation has no significant effect on blast pressures above 10 pounds per square inch (psi). Moderate to heavy rains can reduce distances to which lower blast overpressures extend. Precipitation affects thermal radiation only by reducing visibility which affects the distance to which thermal radiation extends. The secondary effects of precipitation in the target are important. Wet uniforms require much higher thermal intensities for ignition. Personnel also may be expected to cover more of the body and to take shelter. Buildings, equipment, debris, forests, standing crops, and other normally flammable elements require higher thermal intensities for ignition, and the spread of fires is unlikely after periods of precipitation.

b. Precipitation has no significant effect on initial nuclear radiation. As noted above, troops will tend to take shelter during inclement weather and thus possibly receive some degree of protection. Precipitation can affect residual radiation in two ways. First, if a nuclear weapon is air burst in a heavy rain, the radioactive material can be washed out of the rising cloud and deposited in significant quantities. Creation of such residual hazard is not a normal result of an air burst. Second, after a surface or subsurface burst, with significant radioactivity deposited, heavy rain over the area would tend to wash the contamination from buildings, equipment, and vegetation. This reduces intensities in some areas, and possibly causes high concentrations in drainage systems, low ground, and flat, undrained areas.

5. Wind Direction and Velocity

a. Wind direction and velocity have no significant influence on blast, thermal radiation, or initial nuclear radiation. Wind direction and velocity affect the location of the fallout resulting from surface or subsurface burst of nuclear weapons, since contaminated dirt and debris are deposited downwind. The extent of the contaminated area depends

on the direction and the velocity of winds between the ground and the altitude to which the nuclear cloud rises. To predict the location and extent of the contaminated area, the average wind speeds and directions at various altitudes from the surface to the maximum nuclear cloud height must be known.

b. Dusty conditions are caused in dry soil after a nuclear burst. Depending on speed and direction, wind may clear the dust and increase or decrease observation and concealment.

6. Humidity

Humidity has no influence on blast or nuclear radiation. It affects target vulnerability to thermal radiation to some degree as it determines the moisture content and consequent ignition susceptibility. However, this is significant only when very high or very low humidities have prevailed for long periods.

7. Cloud Cover

Cloud cover has no significant influence on blast or initial nuclear radiation. Storm clouds, however, may affect the extent and location of the contaminated area resulting from a surface or underground burst. If a weapon is burst above, or in a continuous cloud layer over a target, all or a major portion of the thermal radiation may be eliminated. The amount eliminated depends upon the thickness and continuity of the cloud layer and on the position of the burst.

8. Influence of Terrain

a. Gently rolling or flat, open terrain generally maximizes nuclear weapons effects. Considering only the effect of gross terrain features, there is little possibility of personnel or material being shielded by terrain irregularities near ground zero, since the blast wave is moving almost vertically near ground zero. At some distances from ground zero, hills can provide partial shelter from blast.

b. Thermal radiation travels in a straight line. Any terrain feature which casts a shadow, effectively shields personnel within that shadow.

c. Initial nuclear radiation also travels in a straight line, and any terrain feature between the point of burst and the individual provides protection. However, nuclear radiation is subject to scatter by the atmosphere and even shielded areas can receive up to approximately 10 percent of the dosage in the open because of this scatter phenomenon.

9. Deep Valleys and Ravines

Deep valleys and ravines afford a degree of protection from blast effect when the axis of the valley or ravine points well away from ground zero. Where the axis of the valley points toward ground zero,

there is little or no shielding effect, and blast damage may be increased because of the channelizing of the blast wave. Deep valleys and ravines also offer substantial protection from thermal and initial nuclear radiation to troops, materiel, and buildings.

10. Forest and Wooded Areas

The influence of forests or wooded areas on nuclear weapon effects varies since there are wide variables in amount of overhead cover, density of growth of trees, kinds of trees (coniferous or deciduous), and the amount and condition of tree crowns, undergrowth, and forest floor litter. Trees in leaf offer a high degree of protection from direct thermal radiation if the cover is sufficiently continuous. Nuclear weapons have the capability of starting forest fires over wide areas during dry spells. Protection from initial nuclear radiation is insignificant. Blast may create obstacles because of blown down trees, and large numbers of secondary blast injuries may occur among troops occupying a forest.

11. Buildings

The protection afforded by buildings varies widely, depending on type of construction, inflammability, distance from ground zero, and other factors. In general, casualties to troops in buildings are caused by secondary blast effects, such as falling walls, ceilings, and flying window glass. Again, depending on type of construction, distance from ground zero, number and size of openings, and other variables, buildings afford some protection from thermal and initial nuclear radiation.

12. Field Fortifications

a. Field fortifications with sufficient overhead cover effectively protect troops. Use of air-burst weapons against troops in such positions produces some casualties if embrasures, gun ports, or entrances are open. Otherwise, troops are well protected from flying debris and from thermal effects. Casualties from initial nuclear radiation can be expected from a low airburst unless the overhead cover is very dense and of great thickness. Fortifications may be collapsed by sufficiently high blast pressures.

b. Troops occupying foxholes have good protection from nuclear weapon effects. The exact degree of protection depends on the location of the foxhole with respect to the ground zero. Close to ground zero, where a large part of the foxhole is open to thermal radiation, there is little protection. Farther out, where most of the foxhole is shaded from thermal radiation, the nuclear radiation entering the foxhole through atmospheric scatter may be the main cause of casualties. The foxhole offers good protection from the missile effect of blast, but high overpressures can collapse foxholes and cause casualties by tossing the occupants about. Foxholes that are covered, even with shelter halves,

provide protection from thermal radiation, but nuclear radiation will penetrate any normal foxhole cover.

13. Surface Conditions

a. The condition of the surface in the target area is usually not significant. When the ground is level and swampy, or consists of loose sand, digging of foxholes or other field fortifications is difficult or impossible. Consequently, the troops forced to depend on aboveground shelters are more vulnerable to nuclear weapons effects, unless materials and time are available for construction of heavy bunkers or revetting.

b. Under certain surface conditions, and at proper height of burst, a nuclear explosion causes the formation of a dust cloud over a large area. Although this dust cloud may contain little or no radioactivity, visibility is restricted until the cloud has dissipated.

14. Soil Composition

a. In a surface or subsurface burst, soil composition and density affect damage by ground shock. Propagation of the ground shock wave is poorest in light loamy soils and best in plastic wet clay. The pressures transmitted by such plastic wet clay soils may be up to 50 times greater than those transmitted through sandy clay, which is taken as an average soil type. The nature of the soil or rock affects crater size and also may affect the depth of penetration by air-delivered weapons.

b. Air-burst nuclear weapons may induce radioactivity in otherwise harmless substances in the soil. Sodium and manganese are the most common substances thus affected, although other elements also are affected. These elements become radioactive after the burst and emit a residual radiation called induced radiation. Induced radiation from an air-burst nuclear weapon may be tactically significant.

15. Variable Weather and Terrain Factors

In any given situation, the influence of terrain should remain relatively constant. Weather, on the other hand, is subject to quick and wide variations. The weather and terrain information required in planning and conducting operations involving nuclear weapons is indicated below. While the most important direct factors are given principal consideration, the planner also is concerned with secondary effects. For example, in items in a(5) and (9) below, the commander may desire information as to the possibility of obtaining additional casualties from flying debris or tree blowdown as well as the formation of obstacles. These factors are arranged in ascending order of variability.

a. *Terrain.* Constant and seasonal data are included in the analysis of area of operations or in an annex and carried forward to the intelligence estimates.

(1) Thermal and blast reflectivity of target surface.

- (2) Vegetation (amount and type of cover) (blast and thermal effects).
- (3) Terrain irregularities (blast and thermal effects).
- (4) Target elevation (blast and nuclear radiation effects).
- (5) Class of forest stands (blast and thermal effects).
- (6) Soil conditions (surface and underground bursts).
- (7) Soil composition (induced radiation effects).
- (8) Dust potential (tactical considerations and nuclear radiation effects).
- (9) Types of buildings and bridges (blast effects).

b. Weather. (Planning phase.) Weather forecasts are used during preliminary planning. This information is included in the analysis of the area of operations or in an annex and carried forward, after appropriate revision, to the intelligence estimate. The weather forecast covers—

- (1) Temperature.
- (2) Humidity.
- (3) Prevailing scaling wind including speed and direction.
- (4) Light data.
- (5) Tropopause height.

c. Weather. (Operational phase.) The weather items listed below, because of short-term reliability, are disseminated promptly to users. Frequency of dissemination depends upon weather conditions during any given period of time with significant changes disseminated as they occur.

- (1) Temperature.
- (2) Atmospheric pressure.
- (3) Air density.
- (4) Visibility.
- (5) Surface wind speed and direction.
- (6) Wind speed and direction for each 6,000-foot interval to 102,000 feet. Surface to 60,000 feet each 2 hours, and surface to 102,000 feet each 6 hours.
- (7) Precipitation.
- (8) Tropopause height.

APPENDIX XI

INTELLIGENCE ESTIMATE

Note. The titles of sections I, II, III, and IV of this appendix correspond with the paragraphs of the form for the intelligence estimate as given in FM 101-5. The titles of paragraphs 2 to 16 correspond with subparagraphs of the intelligence estimate form.

Section I. THE AREA OF OPERATIONS

1. General

- a. (1) Weather and terrain always are included in the characteristics of the area of operations discussed in paragraph 2 of the intelligence estimate. Other characteristics are included if they are important in selecting courses of action by either force to carry out their mission, assigned or assumed. Characteristics, other than weather and terrain, are of greater importance in areas of operations which have large civilian populations and to commands with extensive territorial or administrative support responsibilities.
- (2) The effects of each characteristic on nuclear weapons and chemical and biological agents are discussed when either combatant has the capability to use them. The discussion includes consideration of both the weapons effects and the effects on the delivery means.
- b. The discussion of the effects of each characteristic of the area of operations on possible enemy courses of action normally includes consideration of ability to attack and to defend. It also includes, as applicable, consideration of effects on other possible enemy courses of action, such as delay, and on the enemy's possible use of particular weapons, methods, techniques, or forces.
- c. The extent of consideration of the effects of each characteristic on broad friendly courses of action is limited by the mission. When the mission is offensive, the discussion does not include consideration of defensive courses of action. It does, however, include considerations of security.

2. Weather

The intelligence estimate usually includes a current weather forecast. When operations cover a long period, or are at a future time, climatic

information may replace weather forecasts. Light data, in tabular form, include the beginning of morning nautical and civil twilights, the ending of evening nautical and civil twilights, moonrise, moonset, phase of the moon, and other information as required.

3. Terrain

The existing terrain situation usually is described in terms of the tactical aspects of the area, observation and fire, cover and concealment, obstacles, key terrain features, and avenues of approach. The discussion of each of these aspects is oriented on their influence on the selection of broad courses of action by either force. For example, for an administrative support unit, the discussion of cover and concealment is oriented on their influence on those courses of action, including installation locations, required to accomplish the administrative support mission and on enemy forces which can interfere with the accomplishment of the mission. In administrative support unit intelligence estimates, discussion of key terrain features is omitted unless the enemy has the capability to seize or control terrain features which will materially affect the accomplishment of the mission.

Section II. ENEMY SITUATION

4. Composition

a. This subparagraph lists the data used for later determination of the strength the enemy may use to prevent the accomplishment of the mission. It lists all the units, including guerrilla type forces, with identifications, that can affect the accomplishment of the mission. Included are such supporting units as air, nuclear delivery, and electronic warfare units that also can affect the accomplishment of the mission. In determining which enemy units can affect the accomplishment of the mission, time and space factors are considered.

b. This subparagraph also lists the guerrilla and paramilitary forces that are operating in the area. These are important considerations for administrative units and in situations short of war and in limited war. Other forces, including long-range weapons delivery units, that may be used in support of the enemy ground elements in time to affect the accomplishment of the mission also are listed. Enemy units believed to be under control of the opposing comparable command but which are committed outside the zone of the friendly unit also are listed by tactical units. Elements of the opposing enemy force deployed in areas where time and space factors do not permit their use in time to affect the accomplishment of the mission are indicated specifically.

5. Strength

a. This subparagraph lists all the opposing enemy forces which can be logically employed against the command in time to affect the accomplishment of the mission. The total forces listed cannot exceed, but can equal or be less than, the total forces listed in the "composition" subparagraph.

b. Enemy strength is categorized as committed forces, reinforcements, air, nuclear, chemical, and biological warfare. Air, nuclear, chemical, or biological warfare units are omitted, as appropriate, when the enemy lacks such capabilities to interfere with the accomplishment of the mission.

6. Committed Forces

a. Committed forces are those enemy ground units, their immediate reserves, and their supporting ground fire units, committed against the friendly unit, whose area of employment is not expected to change to counter the specific course of action selected by the friendly commander. Committed forces may change dispositions within their area of employment, but no significant delay is involved in their employment. Designation of enemy forces as committed forces depends primarily upon their disposition, location at the time of the estimate, and the echelon at which the intelligence estimate is being prepared. If there is doubt whether an enemy unit is a committed force, it is considered as a reinforcement (par. 7). This reduces the risk of the friendly command being surprised.

b. Usually a G2 accounts for committed enemy forces by the size unit used to oppose the friendly size unit used in his headquarters as a basis for planning and conducting operations. For example, against Aggressor organized as given in FM 30-102, a division G2 usually counts committed forces in terms of battalions; a corps G2 in terms of regiments; and field army and higher headquarters, in terms of divisions. At headquarters above field army a statement of the number of corps and armies the enemy has committed also is included. For example, "The committed forces facing this army group consist of 2 rifle armies (1 rifle army of 2 corps with a total of 4 motorized rifle divisions and 2 tank divisions; 1 rifle army of 3 corps with a total of 7 motorized rifle divisions and 4 tank divisions)***." Where the committed forces, such as guerrillas, do not have a known organization, the strength is stated in total numbers.

c. Illustrative example:

- (1) *Situation.* See figure 22. The 20th Inf Div, an interior division, is advancing to the south. The advance of the division has been stopped by elements of two reinforced motorized rifle regiments of the Aggressor 11th Rifle Div (Mtz). Each of these 2 motorized rifle regiments has 2 rifle battalions (reinforced) in con-

tact and 1 rifle battalion (reinforced) in regimental reserve. The third rifle regiment (motorized) of this division is in contact with the 72d Inf Div on the flank of the 20th Inf Div. About 25 miles in rear of the 11th Rifle Div (Mtz), and in the area of the 20th Inf Div objective, 2 motorized rifle regiments of the Aggressor 42d Rifle Div (Mtz) are preparing field fortifications.

- (2) *Discussion.* Only the 4 committed battalions (those in contact) of the 2 motorized rifle regiments in contact with the 20th Inf Div are considered as committed forces by the division G2. Regardless of the specific courses of action selected by the commander of the 20th Inf Div to continue the advance, the area of employment of these four battalions in contact will not change appreciably, even if they shift subordinate elements within their areas. Their reserve battalions can be employed in differing areas. The battalions of the 11th Rifle Div (Mtz) are not considered as committed forces as they are not launched in action against the 20th Inf Div. The two regiments of the 42d Rifle Div (Mtz) are not considered as committed forces because they are not committed against the 20th Inf Div and the area of their commitment, considering their present loca-

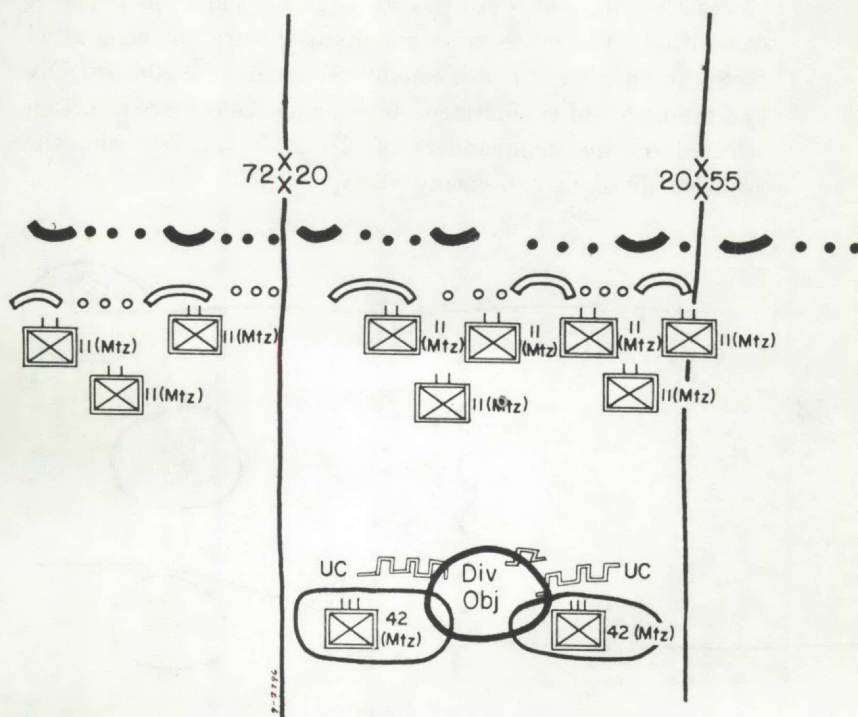


Figure 22. Schematic sketch. (Not to scale.)

tion, may depend on the particular courses of action selected by the commanders of the 20th Inf Div and the adjacent divisions, and enemy plans. At this time, the enemy commander is free to commit all or part of them against the 20th Inf Div or adjacent divisions, at various points subject to time and space considerations. The regiment of the 11th Rifle Div in contact with the 72d Inf Div is mentioned in the "composition" subparagraph. Only the reserve battalion is mentioned in the reinforcement portion of the strength subparagraph because the other two battalions are committed outside the zone of the 20th Inf Div.

d. Illustrative example:

- (1) *Situation.* The 20th Inf Div is attacking to the east (fig. 23).
- (2) *Discussion.* The committed forces are 1 battalion of the 3d Rifle Regt, 3 battalions of the 5th Rifle Regt, and one battalion of the 6th Rifle Regt. The 3d Bn of the Aggressor 3d Rifle Regt is from its location, in regimental reserve and has not been committed. As all battalions of the 5th Rifle Regt appear to be committed against the 20th Inf Div, they are committed forces. The 2d Bn of the 6th Rifle Regt on the south is, from its location, the reserve of the 6th Rifle Regt and has not been committed. The other units not discussed are not committed forces because they are not committed against the 20th Inf Div and their area of commitment depends on the courses of action selected by the commanders of the 20th Inf Div and the adjacent divisions and enemy plans.

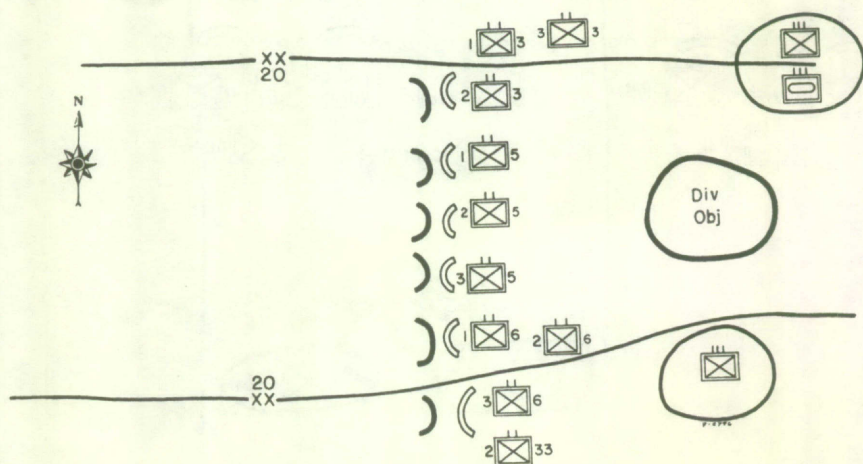


Figure 23. Schematic situation sketch. (Not to scale.)

7. Reinforcements

a. Reinforcements are those enemy forces whose area of *possible* employment against the friendly force depends on the friendly selection of a specific course of action and enemy plans. Reinforcements include all known enemy forces which are neither committed against a friendly force nor committed outside the friendly zone or sector, but which can reasonably be considered capable of closing with the friendly force in time to affect the accomplishment of the mission. All uncommitted enemy forces are considered as reinforcements if they can be committed in time to affect the accomplishment of its mission.

b. Illustrative example:

- (1) *Situation.* Same as described in paragraph 6c(1).
- (2) *Discussion.* The 2 regiments of the Aggressor 42d Rifle Div and the 3 motorized rifle battalions apparently in regimental reserve are considered as reinforcements. These units are not committed against the friendly force and can be committed in time to affect the mission of the 20th Inf Div. Although the two regiments of the 42d Rifle Div are digging field fortifications in the vicinity of the division objective, the enemy commander can employ them against the 20th Inf Div at various times and places in time to affect the accomplishment of the mission. The enemy also can employ these units against the divisions adjacent to the 20th Inf Div.

c. Illustrative example:

- (1) *Situation.* See figure 23.
- (2) *Discussion.* The Aggressor rifle regiment and tank regiment in the assembly area astride the 20th Inf Div north boundary, the Aggressor rifle regiment south of the south boundary, and the two uncommitted battalions forward, are reinforcements. None of these units are committed. From their locations and dispositions, it is apparent that they are the reserves of the two Aggressor divisions and the reserves of the regiments committed against the 20th Inf Div. Depending on the course of action selected by the commander of the 20th Inf Div and the enemy plans, all or part of these Aggressor elements can be employed against the 20th Inf Div at various times and places, in time to affect the accomplishment of the division mission.

d. Reinforcements are stated in convenient and meaningful terms. For example, if the opposing division has a rifle regiment in reserve, this reinforcement is referred to as a "rifle regiment," rather than "three rifle battalions." When enemy units, either committed forces or reinforcements, are very much understrength, the estimated remaining strength is expressed. Two divisions, each at half strength, are usually more

formidable than a single division at full strength because of the added flexibility of employment and the additional combat support probably available. A half strength field artillery battalion is more than half as effective as a full strength battalion.

8. Air

The enemy air capability is based upon numbers of enemy aircraft within operational radius, maintenance facilities, expected attrition, the ground tactical situation, and other factors. The supporting tactical air force furnishes intelligence on the number of sorties, by type, which the enemy can be expected to make within the field army or comparable areas. The estimate usually is not prorated below the field army level. Usually no attempt is made to calculate the number of sorties the enemy can or may make against a subordinate command of the field army or communications zone section. Corps, division, and communications zone section intelligence officers usually quote the estimate furnished by the higher headquarters in stating enemy air capabilities. For example, a corps or division G2 might state, "30th Army estimates that the enemy can be expected to attack within the army area with as many as 150 fighter, 100 attack, and 75 bomber sorties daily. By massing all aircraft within operational radius, the enemy can make a maximum of 250 fighter, 300 attack, and 250 bomber sorties daily."

9. Nuclear, Chemical, and Biological Warfare

a. Estimates of these enemy capabilities usually are prepared at field army and higher headquarters. Units below field army level usually lack the means to gather the information to make such estimates, and use the estimates of the higher headquarters, modifying them with available information.

b. The determination of enemy nuclear, chemical, and biological warfare capabilities is based primarily on estimates of numbers and types of weapons and amount and types of agents available, knowledge of enemy doctrine, past experience, and estimates of enemy capabilities involving the employment of ground troops. As with the enemy air capability, it is rarely feasible to estimate what proportion of the available enemy nuclear or CB effort may be used against a division or corps within a field army or a command in the communications zone. It is also rarely feasible to estimate the number of nuclear weapons the enemy is capable of using within a period as short as 1 day. The period selected is a month or other period depending on the available information and past experience.

c. The statement of the enemy capabilities to use chemical and biological warfare agents includes, if known, the amount, type, and delivery means of available chemical and biological munitions.

10. Recent and Present Significant Activities

This subparagraph summarizes recent and current enemy activities which may point to future enemy actions. Significant enemy failures to take actions also are listed. For example, if the enemy is apparently defending behind a river obstacle but has failed to destroy certain bridges, the omission is listed as a significant activity. Any basis for belief that the enemy has specific knowledge of the friendly situation or intentions also are listed. For example, mention is made of capture by the enemy of an operation order, or compromise of current signal operation instructions or cover and deception operations.

11. Peculiarities and Weaknesses

a. This subparagraph lists peculiarities and weaknesses and briefly discusses each, indicating the extent to which it is a vulnerability and how the selection of broad friendly courses of action are affected. For example, if the enemy has an open flank, the fact is stated in the "operations" part of the subparagraph and the extent to which the open flank constitutes an exploitable vulnerability is discussed briefly. If enemy reserves are small, not motorized, and are poorly positioned to extend the flank, the vulnerability may be great. If the enemy reserves are large, motorized, and in position to extend the flank or to counterattack an enveloping force, the vulnerability is probably insignificant. The G2 might state it as, "The enemy north flank is open. Available reserves, not motorized, are adequate to extend this flank a distance of only about 3,000 yards. Positions to extend the flank have not been prepared. The enemy is vulnerable to a flank attack." Conversely, it might be stated as, "The enemy north flank is open. However, available motorized reserves are adequate either to extend this flank beyond our zone, or to counterattack an enveloping force. Positions suitable to block an attempted envelopment have been prepared as shown on the enemy situation map." In the first case, the enemy's vulnerability to a flank attack is carried forward to the "Conclusions" paragraph of the intelligence estimate. In the second case, the open flank apparently is not a vulnerability, and is not carried any further. Another example, if the guerrilla forces are poorly equipped with antitank means of all types, the fact is stated in the "logistics" part of the subparagraph and the extent to which this is an exploitable vulnerability is discussed briefly. The intelligence officer might state, "The guerrilla forces in our area are poorly equipped with antitank means. They cannot effectively defend against armored vehicles." The inability to defend against armored vehicles is carried forward to the "Conclusions" paragraph as vulnerability.

b. Typical peculiarities and weaknesses include—

(1) Personnel:

Replacement situation (shortages or overages, particularly in specialists).

Morale less than excellent, or exceptionally high.
Disproportionate number of very young or very old men.
High rate of sickness.
Percentage of authorized strength, if less than 80 percent.

(2) Intelligence:

Susceptibility to deception or neutralization of certain enemy information collecting agencies.
Overdependence on one or more categories of information sources.
Ineffectiveness of enemy intelligence.

(3) Operations:

Habitual repetition of certain schemes of maneuver, or unconventional patterns of operations.
Faulty organization of the ground.
Faulty disposition of reserves.
Susceptibility to electronic countermeasures.
Inadequate troop training, especially in defense against nuclear weapons or chemical and biological agents.
Lack of adequate mobility.
Inadequate air or artillery support, or nuclear weapons delivery systems.
Pronounced failure to disperse and dig in.
Habitual failure to attack certain types of targets.

(4) Logistics:

Shortages or inadequacies of particular supplies and materiel, including nuclear weapons.
Status of equipment, if less than 80 percent.
Large concentrations of supplies.
Location of vulnerable points and bottlenecks in the logistics system or lines of communication.
Inability to resupply during action.
Failure to equip troops with protective masks or protective clothing.

(5) Civil affairs:

Hostile attitude toward the civil populace, or of the civil populace toward the enemy.
Inadequacies in the control of civil communications, to include movement of civilians.

(6) Personalities:

Peculiarities or weaknesses of the enemy commander, major subordinate commanders, or principal staff officers, as disclosed by or deduced from their past performance, education, politics, experience, or other basis.

Section III. ENEMY CAPABILITIES

12. Enumeration

This subparagraph lists the enemy capabilities. Enemy capabilities are courses of action which the enemy can adopt and which will influence the accomplishment of the friendly mission, either favorably or unfavorably. A properly stated enemy capability indicates *what* the enemy can do, *when* he can do it, *where* he can do it, and *in what* strength he can do it. For example, "Attack (*what*) now (*when*) along our front (*where*) with five motorized rifle battalions supported by all available nuclear weapons, artillery and air (*strength*)."
Another example, "Conduct harassing operations (*what*) at any time (*when*) in our area (*where*) with about 200 guerrillas equipped only with small arms (*strength*)."
For determination of enemy capabilities see paragraphs 17 through 23.

13. Analysis and Discussion

a. The evidence considered in the analysis and discussion of enemy capabilities includes characteristics of the area of operation and positive or negative evidence of enemy activity. A major obstacle across part of the friendly area is evidence that attack elsewhere is more likely. Low ceilings and low visibility are evidence that the enemy may not use all his available aircraft. Open, flat areas without any appreciable cover are evidence that the enemy may not use guerrilla or infiltration forces.

b. In analyzing and discussing each enemy capability, or appropriate combination, the intelligence officer judges from the *enemy* point of view the advantage or disadvantage in adopting the capability. In making this judgment, the G2 also considers the enemy doctrine and practices and the ultimate results of adoption or rejection of the particular capability. For example, "The enemy employment of the unidentified tank division at TNOMYEH will deprive him of the reserves to counter-attack a penetration by either of the two friendly divisions to our south. Commitment of this tank division too early will result in the later defeat of the enemy."

c. If there is no evidence of the enemy possible adoption of a particular capability, and the capability does not represent a major threat to the accomplishment of the mission, the intelligence officer does not judge it. For example, the enemy usually can withdraw beyond our objective. Ordinarily, such withdrawal is not a threat to the accomplishment of the mission. If there is no evidence that the enemy may withdraw, a statement of conclusions is omitted. The intelligence officer merely states "There is no indication of withdrawal."

Section IV. CONCLUSIONS

14. Effects of the Area on Our Courses of Action

The conclusions in these subparagraphs, if included, are stated in the manner discussed in appendix VIII, paragraph 14.

15. Probable Courses of Action

a. The determination of probable enemy courses of action is fully justified by the previous analysis and discussion of enemy capabilities. In this determination, consideration also is given to how the enemy views his own vulnerabilities as indicated by his doctrine, past experiences, and personality of the enemy commander. Consideration also is given to previous enemy selection of courses of action under similar circumstances. The determination is objective and not a guess at what the enemy will do. It is the conclusion, based on the available evidence, what he is *most likely* to do.

b. In determining the relative probability of adoption of enemy courses of action, the intelligence officer avoids conclusions based on our doctrines and practices. The available evidence considered in the determination includes the *enemy* doctrine and practices as well as positive or negative enemy activity. If the available evidence of enemy *activity* is not definitive enough alone to justify selection of an enemy course of action most probable of adoption, the intelligence officer selects one based on the characteristics of the area of operations, enemy doctrine, enemy practices, and the available evidence. Conclusions reached on this basis, are so indicated to the commander.

c. In the statement of the courses of action most likely of adoption by the enemy, several capabilities may be combined for brevity and clarity. All the enemy capabilities combined in one statement must be capable of being implemented at the same time. For example, the most probable enemy course of action may be, "Attack to envelop our north flank reinforced by his corps reserve and using all available nuclear weapons, artillery, and air support and conduct harassing operations in our rear areas with guerrillas and infiltrating forces."

16. Vulnerabilities

a. An enemy vulnerability is any condition or circumstance of the enemy situation or the area of operations which makes the enemy especially liable to damage, deception, or defeat. In this subparagraph, only those enemy vulnerabilities which may be exploited are considered. In studying the enemy peculiarities and weaknesses to determine such vulnerabilities, the characteristics of the area of operations, all aspects of the enemy situation, and the enemy's doctrine and practices are considered. Only actual vulnerabilities are presented. An open north flank which the enemy cannot, with available forces, extend or refuse, is a

vulnerability. If, however, the enemy has reserves which can readily extend the flank to an impassable obstacle, or counterattack to pin enveloping troops against that obstacle, the open flank is a vulnerability only if the enemy reserves are destroyed. In such a case the open flank is mentioned as a possible vulnerability subject to destruction of the enemy reserves.

b. Each exploitable enemy vulnerability is listed as a brief statement of the effect of the vulnerability rather than a repetition of the peculiarity or weakness. For example, "Shortage of antitank means" is not stated. Instead, the effect of that weakness is given by stating, "Limited capability to oppose armored vehicles." The vulnerability discussed in the previous subparagraph could be stated as "Enemy north flank open to envelopment subject to destruction of enemy reserves at * * *." The order of listing vulnerabilities does not matter.

c. In determining the enemy vulnerabilities to list, the G2 considers the feasibility of their exploitation by his own, higher, and subordinate commanders. However, recommendation to the commander of courses of action to be adopted is the responsibility of the G3. The listing of enemy vulnerabilities does not mean that they can all be exploited at the same time. Frequently, the exploitation of one vulnerability precludes the exploitation of another vulnerability. For example, the enemy may be vulnerable to both a night penetration and a daytime flank envelopment.

Section V. DETERMINATION OF ENEMY CAPABILITIES

17. General

a. Commanders base plans and actions upon estimates of enemy capabilities and the probability of their adoption. Enemy capabilities can be estimated objectively because they are based upon knowledge of the area of operations, enemy situation, enemy doctrine, and time and space factors. Indications of enemy intentions may be a consideration; however, intentions can seldom be determined. The enemy commander may change his mind or his higher commanders may change his orders. The enemy may practice cover and deception to indicate actions different from those which he actually intends.

b. In considering enemy capabilities, actions which are grossly disadvantageous to the enemy, or unreasonable, are not included. For example, the enemy may be physically capable of disengaging troops committed outside our zone in order to employ them against us. However, in most circumstances the G2 does not consider this to be a capability because it is unreasonable.

18. The "What" of an Enemy Capability

a. Four general tactical operations are usually possible. The enemy can attack, defend, or withdraw, and can usually reinforce his committed troops. These operations are usually divisible into a variety of specific courses of action. For example, an attack may be a penetration, an envelopment, or a turning movement. A defense may be in one position or in successive positions, and may be either static or mobile.

b. The specific activities which the enemy can physically adopt depend upon the available means and conditions under which those means can be used. Consequently, the *what* of each of the enemy's capabilities is determined by considering the characteristics of the area of operations, the order of battle of the opposing forces, and time and space factors. Study of the characteristics of the area of operations, our situation, and the means available to the enemy, usually indicates that the enemy is physically capable of certain actions, but that others are impracticable. For example, the enemy can envelop only when we have an assailable flank, and can conduct airborne operations only when he has the necessary troops and aircraft.

19. The "When" of an Enemy Capability

a. The time at which the enemy can put into effect any of his capabilities depends upon the dispositions of his forces and equipment. Committed forces can be employed without significant delay, and can attack or defend now. Forces disposed at some distance behind the edge of the battle area cannot be committed immediately; they must first be moved to the place of employment. Complicated weapons systems such as long range missiles, may require time to set up after reaching launching sites before missiles can be fired.

b. An enemy capability involving displacement of forces cannot be put into effect until sometime after the force has started to move. Reserves cannot reinforce an attack or defense until they have been moved to appropriate locations such as attack positions or forward assembly areas. Consequently, time and space factors are computed in determining the "*when*" of a capability involving the displacement of forces or equipment. These computations are discussed in paragraph 23 below.

c. References to *when* usually are omitted from a statement of the enemy air, nuclear, chemical, and biological capabilities and other capabilities if "at any time" is intended. References to *when* usually are omitted from statements of enemy capabilities pertaining to withdrawal and delay in successive positions as "at any time" is implied. Such actions can be started at any time. In withdrawal capabilities, reference may be made to the time of the start of the withdrawal. For example, "The enemy can withdraw beyond our objective at any time before our attack."

20. The "Where" of an Enemy Capability

a. The *where* of an enemy capability depends upon the weather, terrain, and disposition of his forces. Under existing and predictable conditions of weather, the terrain may provide avenues of approach into our position from the front, flanks, or rear. Conversely, it may prevent the enemy's use of armored, mechanized, or airborne forces in certain areas. Cross compartments may provide the enemy with suitable defense or delaying positions. The existence of suitable objectives, drop or landing zones, indicates where airborne forces may be employed. The presence of suitable beaches suggests where enemy amphibious forces may land. The locations of adequate assembly areas and attack positions indicate where enemy missile launchers may be located. Accordingly, the intelligence officer determines the *where* of each enemy capability through analysis and integration of the characteristics of the area of operations with the situations of the opposing forces. If the enemy is physically capable of launching an attack, the G2 asks himself in effect, "Where can he do it?" If the enemy defends, he asks, "Where are suitable defensive positions and to what places must reinforcements be moved before they can be committed?" If the enemy delays in successive positions, he asks, "Where are the favorable delaying positions?"

b. Examples:

- (1) If the enemy can attack, and the situation and the area of operations indicate that the attack may strike anywhere along our front, the partially stated enemy capability becomes: "Attack along our front * * *." In other circumstances, enemy capabilities, stated in part, may include: "Attack to envelop our north flank * * *," or "Attack in the direction BEIRUT-ACRE," or "Land (amphibious or airborne) forces in the vicinity of * * *."
- (2) Partial statements of an enemy defense capability may include: "Defend in his present position . . .," or "Defend the line of the OB River * * *."
- (3) Delay capabilities may include: "Delay in his present and successive positions to the line of the HAN River * * *," or "Delay along the general lines PAULUS-JOANA, PENNYA-WILLTHIR, * * *."
- (4) Partial statements of the enemy's reinforcement capability may include: "Reinforce an envelopment of our north flank * * *," or "Reinforce his defense of the line * * *."

21. The "In What Strength" of an Enemy Capability

a. The strength the enemy can use in any particular capability depends primarily upon the composition, dispositions, and strength of his available forces. Order of battle intelligence furnishes necessary data.

b. Forces which the enemy has committed against us can be employed in almost any capability the enemy chooses to adopt. If 6 rifle battalions are committed against a division, the enemy can attack with 6 rifle battalions, supported by all available artillery, air, and nuclear weapons, etc. He also can defend in his present position with the same 6 battalions and the same support. In addition to the forces committed, the enemy also can use the reserves available at any echelon. If the enemy has 6 battalions committed and a regiment in reserve, he usually can reinforce either his attack or his defense with the reserve regiment. A partial statement of this capability could be, "Attack now to envelop our north flank with 6 rifle battalions supported by all available artillery, and nuclear weapons, air, reinforced by 1 rifle regiment at the following times and places * * *."

c. The statement of strength is usually confined to close combat units such as infantry, armored, guerrilla, and mechanized (including reconnaissance) units and their combat support means such as artillery, air, nuclear weapons, and chemical agents. The usual unit of enemy strength is the battalion or a larger unit. Guerrilla strength is expressed in total numbers, if more appropriate. Units smaller than the battalion may be used, if appropriate. The *number* and *details* of artillery, air, and similar units, available to support the enemy's operations, are specified in the "strength" subparagraph of the intelligence estimate and are usually not repeated in the statement of a capability involving support of close combat units. The numbers and types of sorties or weapons such units can deliver are usually stated in detail only in a separate capability distinct from support of close combat units.

d. Reference to "in what strength" usually is omitted in the statement of enemy capabilities for withdrawal and delay in successive positions capabilities as it is implied that such actions involve all the available forces.

22. Capabilities in Support of Combat Forces

a. Some enemy capabilities refer specifically to the support of close combat forces rather than to the capabilities of close combat units. Such capabilities include air, nuclear and chemical and biological warfare, cover and deception, and electronic warfare capabilities.

b. Enemy combat support capabilities, such as use of electronic warfare and cover and deception, are stated when enemy implementation of such activities will significantly affect the accomplishment of the friendly mission. Statements of such capabilities include when the capability can be implemented, the area over which the capability will be effective, and the enemy resources available or the results that can be accomplished. The "where" is omitted if it is meant anywhere throughout the unit area of operations. For example, "Start cover and deception operations at

any time to include imitative and manipulative transmissions and use of special units capable of depicting two divisions, either tank or motorized rifle," or "Aggressor can intercept and jam our electromagnetic radiations at any time from any areas where he has line of sight to our transmitters and to the receivers to be jammed."

23. Reinforcement Capabilities

a. The time required for an enemy to move troops from one place to another and then commit them to action is determined on the basis of factors derived from careful analysis of past similar enemy movements. The considerations described below are applicable in training and as a point of departure for the development of experience factors in operations against an enemy force. See FM 30-102 for Aggressor troop movements.

b. To determine the time⁶ when the enemy can employ an uncommitted unit, the travel time from the unit location to a logical point where the unit can be committed is calculated. To the travel time is added the time required for assembling (closing time) a sufficient portion of the unit to be employed in coordinated action. Travel time plus closing time is the time after starting movement (ASM) when the reinforcement can be effected. Except when observation of enemy units is continuous, it is assumed that any unit could have started to move immediately after its last reported location. To determine the earliest time at which the enemy can reinforce, it is only necessary to add the travel plus closing time to the time last seen. For example, if an enemy reinforcement was last seen at 0800 hours and it can be employed to envelop our north flank 1 hour after starting movement, it is assumed that the attack can be launched as early as 0900 hours (0800 plus 1 hour). In the exceptional case involving piecemeal commitment of enemy reinforcements, travel time only is considered. Forces which are committed piecemeal do not close into an assembly area or attack position.

c. Because observation of reinforcements is rarely continuous, statements of enemy reinforcing capabilities preferably include both the earliest time and the time after starting movement (ASM time) when the reinforcement can be effected. For example: "The enemy can reinforce his attack with the 45th Rifle Regt at 0900 hours, or 1 hour ASM." When the time since the last report is greater than the ASM time, only the ASM time is given. For example, "The enemy can reinforce his attack with the 45th Rifle Regt now, or 1 hour ASM." When the number of reinforcements is large, or the enemy is capable of reinforcing in several areas, reinforcing capabilities are presented in tabular form.

For example, "The enemy can reinforce his attack or his defense with all or part of the following units at the places and times indicated below:

Unit	Place	Motor	Foot
45th Rifle Regt...	RJ 638...	Now or 1 hr ASM...	091205 Jun or 4 hr 5 min ASM
	RJ 888...	090930 Jun or 1 hr 30 min ASM	091605 Jun or 3 hr 5 min ASM
37th Rifle Regt...	RJ 638...	091000 Jun or 2 hr ASM	100740 Jun or 23 hr 40 min ASM
	RJ 888...	090920 Jun or 1 hr 20 min ASM	091430 Jun or 6 hr 30 min ASM."

d. In selecting a logical point for reinforcement, the effect of such characteristics of the area of operations as avenues of approach, and logical enemy reactions to friendly course of action are considered. For reinforcement of an attack capability, attack positions are selected for battalions and regiments, and forward assembly areas for division and larger units. For units moving to reinforce a defense, defense or counter-attack positions are selected. For movements by aircraft, logical landing or drop zones from which the enemy forces can materially affect the accomplishment of the mission are selected.

e. The time required by the enemy to entruck, detruck, issue extra ammunition, make detailed reconnaissance, issue orders, deploy, or move from an attack position to a line of departure, is not considered because all may be completed before starting the operation or simultaneously with the movement.

f. The guidance below is applicable until experience factors against a particular enemy are developed.

- (1) Compute foot marching time for all appropriate reinforcements. Compute motor movement time only for distances greater than 5 miles. If a unit is observed in trucks, compute only the motor movement time.
- (2) Consider a foot march of more than 20 miles as a forced march. Consider a motor movement of more than 175 miles as a forced march for motorized infantry units, and a movement of more than 140 miles as a forced march for armored, tank, and mechanized units.
- (3) At the beginning of morning nautical twilight (BMNT), if the column is not closing, change the rate of march from night to day. If the column is closing at BMNT, close the column at the night rate of march. At the end of evening nautical twilight (EENT), if the column is not closing, change the rate of march

ANNOTATED EXAMPLE OF A WRITTEN INTELLIGENCE ESTIMATE

Classification is centered at the top and bottom of each page. For training documents, classification is indicated in this manner:

(Classification)

G2 Section, 1st Corps
OLIVIO (0256), KURTANIA
101200 August 1960

If distributed outside of the headquarters, the heading is modified accordingly.

Estimates are numbered successively throughout the calendar year.

INTELLIGENCE ESTIMATE NR 88

Reference: Maps, KURTANIA, 1:250,000, BONNOTI-LESLETA
Sheets T-3 * * *

References list maps, charts, or other documents required to understand the analysis. References to maps include the country or geographical area and/or map series number, edition (if required), scale, and map sheet name and number.

The time zone, if required, is listed here. In addition, all date-time groups have a suffix to identify further the time zone, if required.

Include light data and either a weather forecast or climatic information as appropriate. Use appendix(es) for detailed information.

1. MISSION
Defend the area, ZEIRATA (4901)-- * * * all points inclusive, prepare to continue the attack towards * * * on army order.

2. THE AREA OF OPERATIONS

- a. Weather.

- (1) Existing situation. During the period 10 to 20 August, weather will be fair except for scattered occasional showers. Visibility will be unlimited except when reduced to 1 to 3 miles during showers. Surface winds will be from the west at 5 to 12 miles an hour. Mean effective wind for yields of tactical interest are usually about 15 knots from the west. Atmospheric pressure will average about 980 millibars. Temperature will range from about 57° to 90° F. New moon: 10 August.

Light Data

	BMNT	BMCT	EBCT	EBNT	MOONRISE	MOONSET
10 August	0402	0443	2007	2051	1806	2223
	*	*	*	*	*	*
20 August	0420	0458	1948	2028	1815	0210

This paragraph discusses the influence of the area of operations used in arriving at conclusions. This paragraph is based on the facts and conclusions of the analysis of the area of operations, if one has been prepared. Effects on our courses of action may be omitted if adequately covered in a current analysis of the area of operations.

Discuss the effects of weather on each enemy broad course of action. Each discussion concludes with a summary statement as to whether the course of action is favored or not by the weather. Among the courses of action, include as appropriate, use of nuclear weapons, chemical and biological agents, special methods, techniques, equipment, procedures, or forces. For example, use of airborne forces, surveillance devices, communications, electronic warfare, tactical cover and deception, significant effects on personnel management, logistical support, and civil affairs military government operations.

- (2) Effect on enemy courses of action. Weather, except during showers, gives Aggressor excellent observation for defense or attack. An attack during the period will have good cross-country trafficability. Cross-country trafficability, and observation will be only slightly restricted by moderate showers. Winds are unfavorable to Aggressor use of smoke, toxic chemicals, or fallout. Weather favors Aggressor use of air and nuclear weapons. * * *

- (3) Effect on our courses of action. The weather favors the defense. Fair weather favors exploitation of our armor, artillery, and airpower, and use of nuclear weapons. Surface and winds aloft favor our use of smoke, toxic chemicals, and fallout.

Discuss each major course of action to accomplish the mission in the same manner as for enemy courses of action above.

Use graphic representations where possible. Use annexes for detailed material. Include as much information as necessary for an understanding of observation and fire, concealment and cover, obstacles, key terrain features, avenues of approach. Include effects of and on each, as appropriate, of nuclear fires, biological and chemical agents, etc. See appendix VIII for details of discussion of the five factors given above.

- b. Terrain.

- (1) Existing situation.

- (a) Observation and fire. There are few good observation points, except along * * * Smoke from forest fires caused by nuclear weapons is likely to * * * Fields of fire throughout the area for flat-trajectory weapons range from excellent to poor, being limited by * * *

- (b) Concealment and cover. Good concealment is afforded by the wooded areas. Some concealment and cover is available in * * * The numerous deep ravines and folds in the ground offer some protection from thermal effects of nuclear weapons * * *

- (c) Obstacles. SHAMUS River fordable; fordable with difficulty north of * * * The soil, even where under cultivation is firm and capable of supporting extensive heavy wheeled and tracked vehicle traffic. In stream bottoms, the wet soil will magnify the cratering effects of sub-surface nuclear bursts and will only support light tracked and wheeled traffic. Soil composition favors the production of high intensities of induced radiation. Terrain favors Aggressor use of persistent toxic chemicals in the valley forward of his position in the southern part of the corps sector. Woods in the vicinity of * * * will become major obstacles in the event of blowdown or if set on fire.

- (d) Key terrain features.

1. Hill mass 377 (3704) and ridge to the north. This terrain feature has the highest elevation in the corps sector. If seized by Aggressor, he can control by fire and observe the entire forward portion of the western half of the corps area. It also controls, in depth, all avenues of approach leading into the * * * area.
* * * * *

- (e) Avenues of approach.

1. Avenues of approach into our position.

- (a) Axis WALSO (5606)--* * *--
ALTHEA (2698). The road net in this avenue of approach is excellent, with major roads leading into our position. There is adequate room for deployment of one motorized rifle division.
* * *

2. Avenues of approach into Aggressor's position.

- (a) Axis LAURIEA (5682) * * *. This approach reaches dominating terrain early by crossing the * * * saddles, thus avoiding the deepest and steepest portions of two major cross compartments. The artificial obstacles in these saddles are shallow. Once the area of Hill * * * is reached, this avenue of approach follows a wide ridge large enough to accommodate a division. The road net in this avenue of approach is fair and there are no trafficability problems.
* * * * *

When either opposing force has available an adequate number of aircraft which can be used to deploy troops and equipment forward of the battle area and significantly affect the accomplishment of the mission, air avenues of approach may be listed. If terrain and weather conditions do not significantly influence choice of flight paths, then air avenues of approach are not listed. When the opposing forces are not in close contact, or when only security forces are in contact, avenues of approach to the battle area for both forces are listed. For administrative support units, the discussion of avenues of approach is based on rear area security requirements.

Based on the analysis of observation and fire, concealment and cover, obstacles, and the mission, select the key terrain features. Consider any locality or area the seizure, retention, or control of which affords a marked advantage to either force. Briefly discuss in turn the influence of each key terrain feature listed. Discussion is oriented towards subsequent development of friendly and enemy courses of action. This discussion may be omitted when the enemy has no capability to seize or control terrain features which will materially affect the accomplishment of the mission.

Enemy avenues of approach are listed first.

Effects on enemy courses of action are discussed first.

Discuss in the same manner as for the effects of weather. For defense courses of action, give the best defense area and the best avenues of approach leading to the best defense area. For attack courses of action, give the best avenues of approach.

- (2) Effect on enemy courses of action. Terrain does not favor Aggressor attack. Woods and valley obstacles will slow and canalize Aggressor movements. The best defensive areas are * * * The best avenues of approach to these areas are * * * The most favorable approach for an Aggressor attack is * * * Terrain favors Aggressor delivery of nuclear weapons by low level air attack as long as he controls UMPSCHEIDT Ridge.

- (3) Effect on our courses of action. The terrain favors the defense in the * * *. The best avenue of approach to this defense area is * * * The steep slopes of the * * * are formidable obstacles to mechanized attack. The broken rolling country and steep stream valleys within our position favor defense on successive positions. Near the corps south boundary the terrain is relatively open, with no terrain obstacles between * * * The terrain generally favors the use of nuclear weapons. Rubble and blowdown resulting from nuclear blast could make formidable obstacles of cities, towns, and woods in the zone. The terrain favors the use of toxic chemicals.

Discuss in the same manner as for effects of terrain on enemy courses of action.

The following additional characteristics are considered, as pertinent, in separate subparagraphs: sociology, politics, economics, psychology, and other factors. Other factors may include such items as science, material, transportation, manpower, and hydrography. They are analyzed under the same headings as weather and terrain.

- c. Other characteristics.

- (1) Psychological. Aggressor nuclear attacks of nonmilitary targets have resulted in bitter hostility by local civilians to Aggressor forces.
- (2) Effect on enemy courses of action. Attitude of civilians will probably hamper operations of Aggressor guerrillas in our sector.
- (3) Effect on our courses of action. Hostile attitude of civilians toward Aggressor can be exploited to assist in anti-guerrilla operations.

(Classification)

(Classification)

(Intel Est Nn 88--1st Corps)

This paragraph gives that information of the enemy to permit later development of enemy capabilities and vulnerabilities and refinement of these capabilities into specific courses of action and their relative probability of adoption. In preparing this paragraph, judgment is required to isolate the pertinent items of information.

3. ENEMY SITUATION

- Dispositions. Annex A, Situation Overlay.
- Composition. Aggressor forces opposing the corps are estimated to be the 40th and 195th Rifle Div, and elements of the 40th Rifle Regt, 19th Rifle Div. Aggressor 22d Corps, which is known to be operating in this area, is believed to be the controlling headquarters for the 83d, 40th, and 195th Rifle Div. The normal corps artillery is supporting the divisions in contact. The unidentified mechanized rifle unit located in the vicinity of *** is estimated to be a mechanized rifle regiment and is believed to be in corps reserve. An estimated 1,200 guerrillas, lightly armed, are operating in the *** area. At least 1 300-mm gun battalion and 1 ROCKO and 1 MICKY missile battalion and elements of a howitzer division are known to be in support of Aggressor 22d Corps. Elements of the 4th Air Army have been supporting Aggressor forces in our sector.
- Strength.

Reference may be made to overlay or enemy situations, maps, or previously published documents.
List all units, including guerrilla-type forces, with identifications, that can affect the accomplishment of the mission. Included are supporting units such as air, nuclear delivery, and electronic warfare. In determining which enemy units can effect the accomplishment of the mission, consider time and space factors. Reference may be made to previously published documents.

Committed forces are those enemy ground units, their immediate reserves, and their supporting ground fire units, committed against the friendly unit and whose area of employment is not expected to change to counter the specific course of action selected by the friendly commander. Include artillery and other units in position to support the committed forces with fire and chemical and biological warfare agents. Specify, as appropriate, which units can deliver nuclear fires, chemical agents, etc. Omit if there are no committed forces.

- Committed forces. 1st Corps is opposed by approximately 7 rifle regiments and 3 medium tank regiments supported by 14 battalions of artillery, 2 antitank battalions, 2 150-mm mortar battalions, 1 250-mm rocket battalion, 1 300-mm gun battalion, 1 ROCKO battalion, and 1 MICKY battalion. 1st Corps is also opposed by about 250 guerrillas, lightly armed.
- Reinforcements. Aggressor reinforcements available for commitment in our zone are--
 - Estimated mechanized regiment located vicinity of ***.

Enemy strength in this subparagraph is categorized as committed forces, reinforcements, air, and nuclear, chemical, and biological warfare. The categorization assists in developing enemy capabilities and vulnerabilities. Air, nuclear, chemical, or biological warfare units are omitted, as appropriate, when the enemy lacks such capabilities to interfere with the accomplishment of the mission. The total of the forces listed cannot exceed, but can equal or be less than, the total of the forces listed in the composition subparagraph.
Reinforcements are those enemy forces which may or may not be employed against us depending on our choice of specific course of action and enemy plans. Include designation and location. Omit if there are no reinforcements.

List number by type of aircraft within operational radius. Include number of possible sorties per day by type of aircraft, if known.

- Air. 30th Army estimates there are 100 fighters, 50 attack, and 60 bomber aircraft within operational radius of our area.
- Nuclear. One 300-mm gun battalion, one ROCKO battalion, and one MICKY battalion are estimated to be able to fire into our area. 30th Army estimates that Aggressor can employ 30 nuclear weapons per month of from 0.5 KT to 500-KT yield within the army area.

Nuclear, chemical, and biological warfare. State estimate, as appropriate, of number, type, yield, and delivery means of nuclear weapons, chemical, and biological warfare agents available to the enemy.

d. Recent and present significant activities. Annex A, Situation Overlay.

- During the period 3 to 8 August, Aggressor continued to fall back before the advance of 30th (US) Army until the line *** was reached. Thereafter, Aggressor resisted our advance successfully.
- Photointerpretation reports indicate extensive entrenchments being dug in the area between ***. Civilian line crossers report that much of this is being done by forced civilian labor under Aggressor engineer supervision.

List items of information to provide a basis for analyses to determine relative probability of adoption of specific courses of action and enemy vulnerabilities. Enemy failures to take expected actions are also listed. Any existing basis for belief that the enemy has specific knowledge of the friendly situation or intentions is also listed.

e. Peculiarities and weaknesses.

- Personnel. Aggressor units opposing US units are operating at about 70 percent personal strength. Combat efficiency is fair. Although losses received in operations west of the YANGTZE River and in our nuclear attack along the YANGTZE River were severe, Aggressor has been able to provide trained replacements on a limited scale. Morale is rated as fair to poor.
- Intelligence. Aggressor radio and camouflage discipline appear to be weakening.
- Operations. All Aggressor divisions in contact are overextended. Aggressor forces opposing us do not have normal amount of supporting antitank, air defense, and field artillery. His close air support is decreasing materially. Targets attacked with nuclear fires have been of battle group or larger size.
- Logistics. Aggressor can support a defensive operation and, with difficulty, an offensive operation. Aggressor is estimated to be short 30 percent of his organic transportation and short of normal POL supplies. Thus shortage may reduce Aggressor's capability to move his reserves rapidly.
- Personalities. General of Corps Carlos Torres has recently arrived in the theater and has assumed command of 22d Rifle Corps. He is reputed to be an expert on defensive operations.

An estimate of strength is usually included if less than 80 percent authorized, and status of morale is included if less than excellent.

An estimate of combat effectiveness is usually included if less than excellent.

An estimate of enemy ability to support his forces logistically is included if there are any apparent inability to do so.

Based on knowledge of enemy tactical doctrine, practices, the principles of war, the area of operations, and the enemy situation previously described and discussed, list these items permitting development of vulnerabilities and determination of relative probability of the enemy adoption of specific courses of action. The items listed are grouped under the headings indicated. Only pertinent headings are used.

Based on the previous information and analyses, develop and list the enemy capabilities. The listing provides a basis for analyzing the available information to arrive at those capabilities the enemy can adopt as specific courses of action and their relative probability of adoption.

4. ENEMY CAPABILITIES

a. Enumeration.

- Attack now along our front with seven rifle regiments supported by all available artillery, air, and nuclear weapons.
- Defend now in present positions with seven rifle regiments supported by all available artillery, air, and nuclear weapons.
- Reinforce his attack or defense with all or part of the following units at the places and times indicated:

Unit	Place	Motor	Foot
***	***	***	***
(b) Est mech regt vic ***.	***	2 hr and 10 min ASM	***
***	***	3 hr ASM	***
- Employ in the 1st Corps area an unknown number of nuclear weapons of 0.5-KT to 500-KT yield with delivery by artillery, free rocket, missile, or air.
- By massing aircraft within operational radius of 1st Corps, mount a maximum of *** sorties daily.

State what, when, where, and in what strength, for each capability.

b. Analysis and discussion.

- Attack. There are no indications of Aggressor adopting this capability.
- Defend. The following indications point to Aggressor's adoption of the defense capability: ***.
- Aggressor nuclear attack is a continuing threat. It must be assumed that Aggressor will continue to employ nuclear weapons against targets of battle group or larger size.
- Air attack is a continuing threat. However, it is unlikely that more than a small portion of Aggressor's air capability will be used for direct ground support.

To provide a basis for conclusions on adoption of enemy capabilities and their relative probability of adoption, each capability, or appropriate combination, is discussed in a separate subparagraph. All the pertinent previous information and conclusions are tabulated as either supporting or rejecting the adoption of the capability. After listing all the evidence, each capability is or is not advantageous to the enemy. Such judgments need not be made if the conclusion is obvious or if there is no evidence that the enemy will adopt the capability, except when the capability is one which, if adopted, will make the accomplishment of the friendly mission highly doubtful or impossible. This exception is to focus attention on dangerous threats.

5. CONCLUSIONS

- Our best defensive position is in the area ***. The best avenue of approach to this area is ***. The best avenue of approach for an attack is ***. Our use of smoke, toxic chemicals, nuclear weapons, fallout, air, armor, and artillery in the defense is favored by the characteristics of the area.
- Probable course of action. Defend in present position reinforced by available reserves and utilizing all available artillery, air, and nuclear weapons and continue harassing attacks with guerrilla forces.
- Vulnerabilities.
 - Enemy vulnerable to penetration because of overextension of forces in contact.
 - Reduced ability to move reserves rapidly.

Conclusions are stated as to the total effects of the area of operations on friendly broad courses of action, the courses of action most probable of adoption by the enemy to include their relative probability of adoption, and the effects of the enemy vulnerabilities which can be exploited, and thus furnish a basis for the selection of a friendly course of action.

Most probable enemy courses of action are listed in order of relative probability of adoption. A listed course of action may include several courses of action which can be executed concurrently. Usually not more than 2 or 3 courses of action in order of probability of adoption can be justified by the available evidence. If the evidence of enemy activities is not definitive enough to justify selecting the enemy course of action most probable of adoption, the intelligence officer selects one based on his knowledge of the area of operations, enemy doctrine, enemy practices, and the available evidence. The bases of such selections are clearly indicated to the commander.

List those broad courses of action which will accomplish or facilitate the accomplishment of the assigned or assumed mission, such as attack, defense, withdrawal, use of air, armor, nuclear fires, chemical and biological agents, and guerrillas. For attack courses of action, indicate the best avenues of approach. For defense courses of action, indicate the best defense areas and the best avenues of approach leading to and into the defense areas. This subparagraph is omitted if the discussion of the effects of the area on our courses of action in paragraph 2 has been omitted because of the availability of a current analysis of the area of operations.

List the effects of peculiarities and weaknesses that result in vulnerabilities that are exploitable at own, higher, or lower echelons. The order of listing has no significance.

/s/ BRAVO
BRAVO
G2

Annex: A--Situation Overlay (omitted)

Distribution: A

(Classification)

from day to night. If the column is closing at EENT, close the column at the day rate of march.

- (4) To move an enemy infantry battalion, move and close the entire unit. To move a unit of regimental or larger size, move and close two-thirds of the combat elements, that is, 2 battalions of an infantry regiment, 2 regiments of an infantry division. To move a U. S. type armored division, or other unit with a similar flexible organization, move and close two-thirds of the entire division.

APPENDIX XII

UNITS, OBJECTS, AND ACTIVITIES IN THE AREA OF OPERATIONS

Note. The enemy is Aggressor as described in FM 30-102. Objects or activities found in one area of influence under one type of operation and in another area of influence during another type of operation are shown in both areas.

1. Enemy Units and Objects

a. Battle Group Area of Influence.

(1) Units:

Antiaircraft regiments	Rifle division headquarters
Assault gun battalions	Division artillery headquarters
Heavy tank battalions	Antitank artillery brigade headquarters
Medium tank regiments	Rocket launcher regiments
Reconnaissance battalions	Heavy tank and assault gun regiments
Antitank artillery regiments	Heavy howitzer brigades
Recoilless rifle companies	Mixed artillery brigades
Engineer regiments	Heavy mortar brigades
Signal battalions	
Chemical battalions	
Rifle regiments	
Mechanized regiments	

(2) Weapons:

Antiaircraft guns	Assault guns
Rocket launchers	Mortars
Antitank guns	Recoilless rifles
Howitzers	Nuclear components

(3) Vehicles:

Tanks	Utility vehicles
Self-propelled guns	Prime movers
Armored personnel carriers	Radio and radar vehicles
Amphibious vehicles	Rocket and missile launchers

(4) Structures:

Foxholes	Pillboxes
Bunkers	Minefields
Tactical wire	Bridges
Barricades	Helicopter pads

Antitank traps	Radio and radar stations
Entrenchments	Airstrips
Revetments	Bivouacs
Weapons positions	Supply dumps

(5) Contaminated areas.

(6) Nuclear explosions.

b. Division Area of Influence.

(1) Units:

Mechanized divisions (corps mobile defense force)	Heavy tank assault gun regiments
Artillery brigades	Rifle army headquarters, main, alternate, rear
Antitank artillery regiments	Front headquarters, main
Rocket launcher brigades	Corps headquarters, main, alternate
Reconnaissance regiments	Division headquarters, main (second echelon)
Rifle divisions	Mechanized division headquarters (reserve)
Motor transport regiments	Antiaircraft artillery divisions
Engineer regiments	
Signal regiments	
Chemical defense battalions	
Service battalions	

(2) Weapons:

Same as in battle group area of influence	Missile launchers
	Nuclear components

(3) Vehicles: Same as in battle group area of influence.

(4) Structures:

Prepared positions of battle-group area of influence type	Railroad tracks, yards, railheads
Class I, II, V depots and supply points	Missile launching sites
Class II and IV depots	Communications stations
Repair shop	Radar sites
Hospitals	Field bakeries, laundries, etc.
Bridges	Airstrips

(5) Contaminated areas.

(6) Nuclear explosions.

c. Corps and Army Areas of Influence. All units, vehicles, weapons, and structures found in the division area of influence may be found in the corps and army areas of influence during situations such as defense, reserve, or training. In addition, the following may be found:

(1) Units:

Tank divisions (army group
mechanized army)
Ponton bridge regiments
Transportation regiments
Tactical air armies
Fighter corps

Attack corps
Bomber divisions
Reconnaissance regiments
Transport regiments
Technical air battalions

(2) Weapons:

Same as division area of
influence
Guided missiles

Fighter, bomber, attack
aircraft
Nuclear components

(3) Vehicles:

Same as battle group and
division area of influence
Jet fighter aircraft

Jet and piston attack aircraft
Jet bomber aircraft
Piston transport aircraft

(4) Structures:

Same as division area of
influence
Army supply depots
Maintenance shops
Salvage yards

Camps
Cantonments
Airfields
Highways
Waterways

(5) Contaminated areas.

(6) Nuclear explosions.

d. Theater Army Logistical Command Area of Influence.

(1) Units:

Guerrilla forces
Paramilitary forces

Stay-behind units

(2) Weapons:

Rocket launchers
Antitank guns
Assault guns

Mortars
Recoilless rifles
Nuclear components

(3) Vehicles:

Utility vehicles
Prime movers

Radio vehicles

(4) Structures:

Foxholes
Bunkers
Tactical wire
Barricades

Pillboxes
Minefields
Bridges
Helicopter pads

- | | |
|-------------------|----------------|
| Antitank traps | Radio stations |
| Entrenchments | Airstrips |
| Revetments | Bivouacs |
| Weapons positions | Supply dumps |
- (5) Contaminated areas.
- (6) Nuclear explosions.

2. Enemy Activities

a. Battle Group Area of Influence.

- (1) Moving in or out of area:
- (a) Personnel—in columns or deployed.
- (b) Vehicles—in columns or deployed.
- (2) Construction or demolition:
- | | |
|----------------|-------------------|
| Foxholes | Weapons positions |
| Bunkers | Pillboxes |
| Barricades | Minefields |
| Tactical wire | Bridges |
| Antitank traps | Airstrips |
| Entrenchments | Helicopter pads |
| Revetments | Tunnels |
- (3) Supply and maintenance operations:
- | | |
|------------------|---------------------------|
| Moving supplies: | Stockpiling supplies: |
| Manpack | Ammunition, POL, bridging |
| Animal | Repairing equipment |
| Vehicle | Messing |
| Helicopter | Water purification |
- (4) Combat operations:
- | | |
|-----------------------------|---------------------------|
| Attacking | Electromagnetic radiation |
| Defending | EW operations |
| Withdrawing | CB operations |
| Firing weapons | Surveying |
| Reconnaissance and security | Aircraft operations |
| Surveillance | Air defense |
| Communications | |

b. Division Area of Influence.

- (1) Moving in and out of area:
- (a) Vehicles in convoy
- (b) Rail
- (2) Construction or demolition:
- | | |
|---------------------------|--------------------|
| Secondary defense field | Camps |
| fortifications similar to | Depots—field |
| a(2) above | Repair shops—field |

Bridges
Airfields
Helicopter pads
Tunnels
Railhead
Roads

Buildings—prefabricated
Hospitals
Missile launching sites
Communications facilities
Air defense facilities
Radar sites

(3) Supply and maintenance operations:

Moving supplies:

Animal
Vehicle
Helicopter

Stockpiling supplies:

Ammunition, POL,
bridging, Class I

Operating supply points and
depots
Repairing equipment
Messing
Water purification

(4) Combat operations:

Preparations for attack,
defense, or withdrawal
Firing weapons
Surveillance
Communications

Electromagnetic radiation
EW operations
Surveying
Aircraft operations
Air defense

c. Corps and Army Areas of Influence.

(1) Moving in and out of area:

Vehicles in convoy
Rail

Waterway
Air

(2) Construction or demolition:

Bridges
Airfields
Helicopter pads
Tunnels
Railroad facilities
Waterway facilities
Highways
Buildings
Camps and cantonments

Hospitals
Depots
Repair shops
Missile launching sites
Communications facilities
Air defense facilities
Headquarters
Industrial facilities

(3) Supply and maintenance operations:

Moving supplies:

Vehicle
Rail
Waterway
Air
Helicopter

Depot operation
Maintenance operation
Messing
Water purification

- | | |
|---------------------------|----------------------------|
| (4) Combat operations: | |
| Training | Electromagnetic radiations |
| Launching guided missiles | EW operations |
| Preparation for attack, | Aircraft operations |
| defense, withdrawal | Air defense |
| Communications | Port operations |

d. Theater Army Logistical Command Area of Influence.

- | | |
|----------------------------------------|---------------------------|
| (1) Moving in or out of area: | |
| Personnel—in columns or deployed | |
| Vehicles—in columns or deployed | |
| Aircraft, including helicopters | |
| (2) Construction or demolition: | |
| Foxholes | Revetments |
| Bunkers | Weapons positions |
| Barricades | Minefields |
| Tactical wire | Airstrips |
| Antitank traps | Helicopter pads |
| Entrenchments | |
| (3) Supply and maintenance operations: | |
| Moving supplies: | Stockpiling supplies: |
| Manpack | Ammunition and POL |
| Vehicle | Repairing equipment |
| Helicopter | Messing |
| Air drop | Water purification |
| (4) Combat operations: | |
| Attacking | Communications |
| Defending | Electromagnetic radiation |
| Withdrawing | Surveying |
| Firing weapons | Aircraft operations |
| Reconnaissance and security | Air defense |
| Surveillance | |

3. Terrain

- | | |
|-----------------|-------------------|
| Relief | Surface materials |
| Drainage system | Manmade features |
| Vegetation | |

4. Weather

- | | |
|---------------------------------|--------------|
| Precipitation | Moon |
| Fog | Light data |
| Temperatures, surface and aloft | Visibility |
| Winds, surface and aloft | Air pressure |
| Cloudiness | |

5. Enemy and Friendly Nuclear Explosions

Ground zero
Height of burst
Yield
Time of burst

Fallout
Rain out
Type, fission, fusion

6. Contaminated Areas

Radiological
Bacteriological

Chemical

	<i>Personnel (moving and stationary)</i>	<i>Vehicles (ground, air, moving, sta- tionary, includ- ing projectiles and missiles)</i>	<i>Weapons (moving, sta- tionary, firing)</i>	<i>Structures</i>	<i>Terrain</i>	<i>Electromagnetic radiations (communications, radar, heat, and light)</i>	<i>Nuclear explosions</i>	<i>Contaminated areas (radiological, chemical, and biological)</i>
COVERAGE	Entire area	Entire area	Entire area	Entire area	Entire area	Entire area	Entire area	Entire area
DETAIL	Platoon-size groups ¹	Small groups of 15-25 vehicles ¹	Missiles and artillery weap- ons ^{1,2}	Groups of structures	Equivalent to 1:50,000-scale map ¹	Location, fre- quency, type, time, and purpose	Location, height of burst, yield, fallout, and rainout	Location, type, and intensity
	Company-size groups ²	Groups of 50- 75 vehicles ²			Equivalent to 1:100,000-scale map ²			
	Battalion-size groups ³	Large groups of vehicles ³		Complexes ³	Equivalent to 1:250,000-scale map ³			
FREQUENCY	2-4 hours ¹	1 hour ¹	Continuous	12 hours	Initial cover- age as soon as possible. New coverage sea- sonal or about each 6 months	Continuous	Continuous	As required
	4 hours ²	4 hours ²		Daily ²				
	Daily ³	Daily ³		Every 2 days ³				
SPEED	30 minutes ¹	30 minutes ¹	Immediate	2 hours		Immediate	Immediate	Immediate
	2 hours ²	1 hour ²						
	4 hours ³	4 hours ³		6 hours ³				
ACCURACY GENERAL LOCATION	300 meters ¹	300 meters ¹	300 meters ¹	300 meters ¹	300 meters ¹	100 meters ¹	Not applicable	Not applicable
	500 meters ²	500 meters ²	500 meters ²	500 meters ²	500 meters ²	500 meters		
	2,000 meters ³	2,000 meters ³		2,000 meters ³	2,000 meters			
ACCURACY SPOT LOCATION	Varies with the characteristics of available weapons				Equivalent to 1:100,000-scale map ¹	50 meters ¹	100 meters ¹	200 meters ¹
					Equivalent to 1:250,000-scale map ^{2,3}	100 meters ²	300 meters ²	
						200 meters ³	600 meters ³	

¹Division headquarters only.

²Corps headquarters only.

³Field army headquarters only.

Figure 24. Typical information of the enemy and terrain needed at division, corps, and field army headquarters.

APPENDIX XIII

INFORMATION NEEDS AT DIFFERENT HEADQUARTERS

1. General

This appendix covers the information needs at different headquarters. At times, a headquarters may be assigned responsibilities normally associated with a higher headquarters. In such cases the headquarters may have the information needs of higher headquarters. For example, in a certain force structure an independent corps frequently will need the information normally needed at field army headquarters; the headquarters of a division conducting independent operations may require the same information normally needed by higher headquarters.

2. Information Needs at Division

a. Typical information of the enemy and the terrain usually needed at a division headquarters are shown in figure 24.

b. Information of other characteristics of the area such as politics, economics, sociology, and psychology also are needed to the extent that they directly affect both friendly and enemy courses of action.

3. Information Needs at Corps

a. The information of the enemy and the terrain usually needed at corps headquarters are shown in figure 24.

b. Corps also requires information of nonphysical characteristics of the area. The requirements at corps are greater than at division, as the corps is concerned with the longer range planning of projected operations as well as the conduct of current operations. Corps intelligence planning requires a greater lead time than at division.

4. Information Needs at Field Army

a. The information of the enemy and the terrain usually needed at field army headquarters is shown in figure 24.

b. The field army's requirements for information of the nonphysical characteristics of the area are greater than at division or corps. The field army has greater territorial and administrative responsibilities and usually is concerned with projected operations well in advance of current operations. Intelligence planning at field army requires a greater

lead time than at subordinate echelons. The army's greater territorial and administrative responsibilities dictate an extensive requirement for information leading to the detection of espionage, sabotage, and subversion. The field army civil affairs responsibilities dictate requirements for detailed information of the nonphysical characteristics of the area such as economics, politics, sociology, and psychology. Special staff section planning agencies require information and intelligence of items such as road and rail nets, local resources, labor forces, and similar economic, political, and sociological information. The army G2 coordinates the overall collection effort. However, evaluating the capacity, condition, and desirability of locations for technical service installations; condition and capacities of existing transportation facilities; estimating the skill and size of the indigenous labor forces, and similar specialized uses are done by the technical service and the civil affairs staff sections concerned.

5. Information Needs at Army Group

As the principal functions of army group headquarters are planning and coordinating rather than detailed supervision and direction of tactical operations, requirements for combat intelligence are reduced, and the requirements for strategic intelligence for long range planning are increased. The requirements at army group headquarters are filled by theater Army, Navy, and Air Force; by subordinate field armies and task forces; and by other army groups or equivalent headquarters. The available combat intelligence is reevaluated and reinterpreted in cognizance of strategic plans and intelligence.

6. Information Needs of Theater Army Logistical Commands

a. The information requirements of logistical commands are dictated by their administrative support mission and territorial responsibilities. Information is required for—

- (1) Determination of enemy capabilities which pose significant threats to the accomplishment of the mission. Such enemy capabilities include attacks with nuclear weapons delivered by any means, air attacks, use of chemical and biological agents, use of airborne forces, use of guerrillas, sabotage measures, and major ground offensives which may result in rearward displacement of the combat zone rear boundary.
- (2) Determination of installations, communications, and other facilities under enemy control which are probable future use to logistical command units.
- (3) Determination of the effects of the characteristics of the area of operations as they influence the accomplishment of the administrative support mission. This requires detailed information

of the physical and nonphysical characteristics of current and projected areas of operations. The information is required for site locations, line of communication planning and control, use of local resources, counterintelligence measures.

- (4) Determination of vulnerabilities of guerrillas and dissident and subversive forces, actual or potential, within the communications zone.

b. Because of the nature of the requirements, much of the information in a(1) above, required by Theater Army Logistical Command (TALogComd) headquarters is requested from theater Army headquarters, army groups, theater Army civil affairs command, and theater Army air defense command. Subordinate elements of a TALogComd require, for the most part, information on which to base counterintelligence measures and the determination of the capabilities and vulnerabilities of bypassed enemy units, guerrillas, and subversive elements within their areas. Information required for decisions or tactical action against bypassed groups and guerrillas is about the same as the information of the enemy sought by divisions.

7. Information Needs of Theater Army

Theater Army headquarters is concerned with campaign planning, general instructions, and policy guidance. The particular information required is that which will provide the intelligence necessary for formulating guidance to headquarters in the communications zone, army groups, and comparable forces.

8. Information Needs of Theater Army Replacement and Training Command

The theater Army replacement and training command requires information that provides intelligence for planning local security measures and intelligence training for replacement units and individuals passing through the command. The intelligence training provided usually is limited to orientation on the characteristics of the enemy and the area of the theater. In addition, information is required for the planning of those units under control of theater Army replacement and training command assigned rear area security and rear area damage control missions.

9. Information Needs of Theater Army Civil Affairs Command

The theater Army civil affairs command requires information of the area of operations about the government, economy, and inhabitants to include their attitude, activities, and such other matters as affect the conduct of civil affairs activities. FM 41-10 discusses in detail information requirements for civil affairs operations.

10. Information Needs of Theater Army Air Defense Command

The theater Army air defense command requires information that provides intelligence to include the following:

a. Capabilities, limitations, and vulnerabilities of enemy air attack means, to includes missiles.

b. Warning of enemy air attack, including missiles, in time to take air defense measures.

c. Capabilities, limitations, vulnerabilities, and practices of enemy electronic means and practices associated with use of air warfare, including missiles.

d. Characteristics of the area of operations affecting location of air defense installations.

e. Enemy capabilities to interfere with air defense activities by operations besides electronic warfare.

APPENDIX XIV

REQUIREMENTS FOR WEATHER INFORMATION WITHIN THE THEATER ARMY

Weather information	Command area				
	Company	Battle gp, regiment, separate battalion	Corps, division	Army	Communi- cations zone
1. Climatic Information					
a. Climatic summaries		X	X	X	X
b. Climatic studies		As rqr	As rqr	As rqr	As rqr
2. Weather Forecasts					
a. General					
(1) 3-5 day		X	X	X	X
(2) 48 hour		X	X	X	X
(3) 24 hour	X	X	X	X	X
(4) 12 hour	X				X
b. Special					
(1) 24 hour area flight		X	X	X	X
(2) Aviation route and terminal		X	As rqr	As rqr	X
(3) Nuclear weapons		X	X	X	X
(4) Radiological defense			X	X	X
(5) Severe weather	X	X	X	X	X
(6) For engineer officer			X	X	X
(7) For chemical officer			X		X
c. Long range trend			X	X	X
3. Weather Observations					
a. Current weather	As rqr	As rqr	As rqr	As rqr	As rqr
b. Airstrip observations		X	X	X	X
c. Ballistic observations			X	X	X
4. Weather Summaries	As rqr	As rqr	As rqr	As rqr	As rqr

Note. See appendix VI for contents of weather forecasts and climatic summaries and studies.

APPENDIX XV

EEI AND OTHER INTELLIGENCE REQUIREMENTS

1. General

The intelligence officer is responsible for recommending essential elements of information (EEI) to the commander. The EEI are approved by the commander because intelligence is a command responsibility and the EEI are the command's highest priority intelligence tasks. See FM 101-5 for staff coordination in formulating EEI.

2. Form and Content of EEI and Other Intelligence Requirements

a. EEI and other intelligence requirements are stated clearly and concisely and preferably as questions. Usually they are concerned with—

- (1) Enemy capabilities, including time, place, strength, or other details.
- (2) Enemy vulnerabilities, including nature, extent, permanence, or other details.
- (3) Enemy order of battle factors.
- (4) Terrain, including natural and artificial obstacles.
- (5) Weather.
- (6) Information desired by higher, lower, or adjacent headquarters.

b. The statement includes enough data to provide guidance for subsequent development into orders and requests for specific information. This is accomplished by including appropriate questions on time, strength, area, and directing special attention to specific units, areas, and activities.

c. Items of information or intelligence specified in the unit SOP for collection or dissemination may become EEI. For example, an SOP may require all units to report immediately items such as "known or suspected targets suitable for nuclear weapons or indications of their existence or development." Whether or not such items are in the unit SOP, they become EEI *if they are needed by the commander at a particular time in making a decision with an acceptable degree of confidence.*

3. Dissemination of EEI and Other Intelligence Requirements

a. EEI are disseminated to subordinate, higher, and adjacent commands to guide them in preparing collection plans and evaluating

(pertinence) information by informing them of the commander's highest priority intelligence needs which they are capable of satisfying. Dissemination of EEI does not insure the collection of the necessary information. Although the EEI prescribe the priority intelligence tasks, collection agencies normally cannot act only on the EEI or other intelligence requirements without further orders, or furnish the final and complete answers to the EEI.

b. Information on which to base the answers is provided by collection agencies, usually in response to orders or requests for specific information. For example, an EEI might be, "Will the enemy reinforce his units now in contact? If so, when, where, and in what strength?" The answer to the EEI is arrived at by processing information on the strength and movement of enemy reserves, locations of assembly areas, and other items of information which have been collected by a number of agencies in response to orders and requests for specific information.

c. The EEI announced by each headquarters are analyzed by each receiving headquarters to determine if the receiving unit is physically capable of obtaining the information to answer the EEI and whether the collection of that information is compatible with its mission. If not, the receiving headquarters does not repeat the EEI to its subordinate elements. The EEI of higher headquarters are modified by a lower unit as required. For example, a corps EEI may ask, "Where are possible crossings of the EYMONT River in the corps zone? Special attention between WALTVILLE and LONG CITY." Subordinate divisions repeat the corps EEI, modifying it to refer to the division zone and directing special attention only to specific parts of the river line within the division boundaries.

d. EEI usually are disseminated by fragmentary orders. They may be announced orally by the commander. They are also listed in paragraph 2 of the intelligence annex to an operation order and may be included in the coordination instructions of paragraph 3 of the operation order. See FM 101-5.

e. Other intelligence requirements are *not* disseminated as such. Orders and requests for specific information to answer these intelligence requirements are sent to collection agencies.

4. Cancellation of EEI and Other Intelligence Requirements

EEI and other intelligence requirements are canceled or modified by fragmentary orders or by publishing in an operation order, a new list of EEI and other intelligence requirements. EEI and other intelligence requirements which are concerned with the enemy's adoption of a course of action prior to a specified time are automatically canceled when that time arrives. For example, an EEI or other intelligence requirements,

which asks, "Will the enemy attack before we attack?" is automatically cancelled when our attack is launched.

5. EEI and Other Intelligence Requirements Pertaining to Enemy Capabilities

a. Enemy capabilities are usually the first consideration in determining EEI and other intelligence requirements because of the commander's concern with intelligence which confirms, alters, or refutes the existing estimate of enemy capabilities and probable courses of action. Each enemy capability listed in the current intelligence estimate is usually the subject of either an EEI or an other intelligence requirement. If knowledge of the implementation of the particular enemy capability or course of action is not available, and such knowledge is needed by the commander at the time in order to make a decision with reasonable confidence, then that enemy capability is an EEI rather than another intelligence requirement.

b. All enemy capabilities are *not* necessarily the subjects of EEI or other intelligence requirements. Enemy capabilities for which there are no apparent possibilities of implementation, are not considered in formulating EEI or other intelligence requirements. For example, when a delaying action is being conducted against advancing superior enemy forces, EEI and other intelligence requirements concerning enemy defense, delay, and withdrawal are not stated.

c. EEI and other intelligence requirements pertaining to enemy capabilities are not answered completely until the enemy has committed himself to a course of action. *Partial* answers are produced continually and result in progressive changes to the intelligence estimate. For example, efforts to determine in *what strength* the enemy may reinforce troops in contact often produce changes in the strength estimate of available enemy reinforcements, and of the enemy's capability to reinforce. Similarly, evidence that the enemy *has* reinforced certain units changes the estimate of the number of committed forces.

d. *Attack Capability.* An EEI or another intelligence requirement concerning an enemy attack directs specific attention to definite areas and usually to specified times. The areas to which attention is directed are usually avenues of approach determined by analysis of the area of operations and enemy dispositions. If the enemy can attack using several avenues of approach, only one EEI or other intelligence requirement is stated with the different avenues of approach indicated as areas to which special attention is directed. Time of the enemy implementation of a capability is most frequently stated when the friendly mission is to attack. The time may be given precisely or may be stated as "before our attack" depending on whether the time of the friendly attack has been determined. Examples of properly stated EEI or other intelligence

requirements are, "Will the enemy attack prior to 170500 June? If so, when, where, and in what strength? Special attention to the axis OLEE—MONTAL." "Will the enemy attack? If so, when, where, in what strength? Special attention to the axes TOKKOLI—YANGU and SUBANGERI—ALETHEA."

e. Defense Capability. Statements of EEI and other intelligence requirements concerning enemy defense specifically state the line or area concerned. For example: "Will the enemy continue to defend in his present position? If so, how will he organize the ground and with what troops? Special attention to locations and activities of reserves." Or, "Will the enemy defend the line (area) GARRO—ZIERA? If so, when, with what troops and with what organization of the ground? Special attention to forces now at BASEHOR."

f. Withdrawal Capability. Statements concerning enemy withdrawal usually indicate the line or area beyond which the enemy's withdrawal is of particular interest, and may direct attention to a line or area to which the enemy might withdraw. For example, "Will the enemy withdraw beyond our objective prior to or during our attack? If so, to what position? Special attention to the line (area) AUS—MICHEN."

g. Delay Capability. Statements concerning enemy delaying actions also specify the lines or areas along which delaying positions may be organized. For example: "Will the enemy delay in his present and in successive positions to the ARBIS River? Special attention to the lines (areas) KEIMO—DUNNO and DUGAS—MRAZEK."

h. Reinforcement Capability. Statements concerning reinforcement ordinarily do not distinguish between reinforcement of an attack and a defense. They simply ask whether available reserves may be employed, and when and where. Other EEI and other intelligence requirements ask specifically whether the enemy will attack or defend. Statements concerning reinforcement direct specific attention to known reserves. For example "Will the enemy reinforce units now in contact? If so, when, where, and with what forces? Special attention to the 45th Rifle Regt at AVA and the unidentified tank division at HEADLEYI."

i. Nuclear Capability. When the enemy has a tactical nuclear capability, the statement of the EEI or other intelligence requirement may be, "Will the enemy employ nuclear weapons against us? If so, when, where, how many, of what yield, and by what delivery means? Special attention to very heavy artillery units in the vicinity of SASFA and possible missile launchers in the vicinity of OSBORNOVITCH."

j. Miscellaneous Capabilities. Statements concerning other enemy capabilities might be:

- (1) "Will the enemy employ guerrilla forces in conjunction with his attack? If so, when, where, and in what strength? Special attention to the heavily wooded area north of MASLEM."

- (2) "Will the enemy infiltrate our lines? If so, when, where and in what strength? Special attention to the swampy area east of OHNHAYS."
- (3) "Will the enemy employ airborne forces in our sector? If so, when, where, and in what strength? What will be the direction and altitude of approach? What drop or landing zones will be used? Special attention to the area south of NARDSDORF."
- (4) "Will the enemy employ amphibious forces on our south flank? If so, when, where, in what strength? How many landing vehicles of what type will be employed? Special attention to beaches at IRVINEU and WALTIEU."
- (5) "Will the enemy use chemical or biological agents against us? If so, what agents, when, where, and by what delivery means? Special attention to mortar and artillery units."

k. Air Capabilities. EEI and other intelligence requirements on enemy air capabilities are rarely listed at division and corps. Intelligence on these capabilities is disseminated by the field army and communications zone headquarters. Units subordinate to those headquarters do not have means to obtain the desired information. In airborne and amphibious operations, where enemy air activity may be a controlling factor, a corps or division commander may appropriately designate an air EEI, especially during the planning phases of the operation.

6. EEI and Other Intelligence Requirements Pertaining to Enemy Vulnerabilities

a. EEI and other intelligence requirements may be designated for developing knowledge of enemy vulnerability to attack by nuclear weapons, and of other conditions or circumstances which make the enemy liable to damage, deception, or defeat. EEI and other intelligence requirements of this category develop intelligence as to the nature, extent, permanence, or other details of the conditions or circumstances which produce the vulnerability. EEI and other intelligence requirements on specific enemy vulnerabilities need not be stated if the answers to other EEI and intelligence requirements also develop the required intelligence on the specific vulnerability.

b. The details desired may be listed in the statement of EEI or other intelligence requirement or may be omitted if they are numerous and routine. For example, for analysis of nuclear targets, information is desired as to size, shape, composition, concentration, vulnerability, recuperability, and permanence. Since these details are both numerous and normal requirements, they are properly omitted from the statement. The statement may simply ask what nuclear targets exist in our zone and direct attention to specific area or activities. When enemy vulnera-

bilities result from faulty dispositions, logistical inadequacies, or administrative deficiencies, the degree of permanence of the condition may have to be established before tactical plans to exploit the vulnerability can be prepared. Hence, EEI or other intelligence requirements may ask "if" and "when" the condition may be corrected. For example, "Will the enemy strengthen his north flank? If so, when, how, and with what troops * * * or "Will recent enemy personnel losses be replaced? If so, when and to what extent?"

7. EEI and Other Intelligence Requirements on Order of Battle

EEI and other intelligence requirements on order of battle factors are often appropriate in long-range planning, or when the enemy situation is extremely vague. Specific intelligence on enemy dispositions, strength, or other order of battle factors may be lacking. For example, in the early planning phase of an amphibious operation, an EEI might be, "What enemy forces will oppose our landing? What will be their composition, strength, and dispositions?" Similarly, when the enemy situation is vague, an EEI or other intelligence requirement might state, "What are the identification, composition, strength, and dispositions of forces to our front?" and "What forces are available to reinforce units now in contact?"

8. EEI and Other Intelligence Requirements on Terrain

a. EEI and other intelligence requirements on terrain conditions are frequently required in *offensive* operations. Information usually is sought about obstacles which may influence either friendly or enemy courses of action. An appropriate statement might be, "What natural or artificial obstacles or barriers exist within the division zone? What are their nature and extent? Special attention to the PASKUNOK and AKCHEN areas." Dependent upon the headquarters and the available information, other terrain data, such as cross-country trafficability and the condition of road and rail lines, may be the subjects of EEI and other intelligence requirements.

b. In the defense, EEI and other intelligence requirements concerning terrain under enemy control may be required to determine enemy capabilities and vulnerabilities.

APPENDIX XVI

THE COLLECTION WORKSHEET

Note. All references to columns pertain to figure 12 of chapter 5 and the example of a partially completed collection worksheet at the end of this appendix.

1. Basis for Specific Orders and Requests

There are frequent duplications in column 3. Not every entry is the basis for a separate order or request. The same item of specific information may be sought in connection with several different indications. For example, indications of attack may include, "location of artillery well forward"; indications of defense may include, "location of artillery laterally and in depth." In both cases, the specific information desired from collection agencies is locations of artillery, by type and caliber.

2. Agencies to be Used

a. All available collection agencies usually are listed at the top of column 4. Military intelligence specialist agencies such as prisoner of war interrogators and photo interpreters may be specifically listed or grouped together. Supporting intelligence collection agencies also are listed.

b. Opposite each basis for specific orders or requests, a cross (X) is entered in the column of each collection agency which is *capable* of furnishing the required information. Applying the factors of suitability, multiplicity, and balance, circles are drawn around the X's of the agencies to be ordered or requested to furnish the information, except for SOP items for agencies under the control of the headquarters.

3. Place and Time of Reporting Information

a. Information may be required by a specified time, at a specified time or times, at specified intervals, or upon the occurrence of specific events. A one-time report, as on the condition of a river bottom, may be required by a specified time. Reports on certain enemy activities may be desired at specified times. For example, such a report may be required daily, at the beginning of morning nautical twilight and at the end of evening nautical twilight. Reports of other enemy activities, such as movement along particular roads, may be required periodically. For example, "every 4 hours beginning at 0800." Reports of identification

of new units, enemy aerial activity, artillery bombardment, nuclear activity, and similar items, are usually required *as obtained*. Periodic negative reports pertaining to specified activities may also be required.

b. Entries in column 5 are determined in consultation with the operations officer. Information which arrives too late is of no value. Information received too soon may be inaccurate by the time it is used.

c. When obtaining the required information requires preparation by the collection agency, allowance is made for the time required for issuance of orders, preparations of personnel for the mission, execution of the mission, and the reporting of the results.

4. Remarks

a. Miscellaneous notes on the progress of the collection effort and notes for future action are recorded in column 6, "Remarks." A code consisting of plus and minus signs, check marks, and crosses may be used for showing whether positive or negative reports have been received, whether information is inadequate, or whether the indication concerned has been substantiated.

b. Notes on future cancellation or implementation of orders and requests, modifications of EEI and other intelligence requirements upon the occurrence of specific events, or other action to be taken as the collection effort progresses, also are entered in column 6.

5. SOP Items

As the collection worksheet is a means of insuring complete analysis of the EEI and other intelligence requirements and that pertinent orders and requests have been issued, entries *also are* made on information items which the unit SOP directs reporting. For example, SOPs ordinarily direct subordinate units to report new identifications as obtained. Nevertheless, the collection worksheet is completed with respect to new unit identifications exactly as it would be if the SOP did not require such reporting. However, for such items the X's under agencies to be used need not be encircled and "SOP" may be entered in the "Remarks" column to indicate that an order is not necessary. If the basis for specific orders or requests directs attention to a specific area, the item is treated as if it were not an SOP item even though it may be a type of information covered in the unit SOP. For example, the unit SOP may prescribe reporting the location of hostile minefields, demolitions, and other defensive works. However, a requirement for reporting the locations of minefields in the vicinity of a specific area is *not* treated as an SOP item.

6. Orders and Requests for Specific Information

a. The wording of an order or request is not necessarily the same as the entry in the collection worksheet on which it was based. Frequently,

the contents of several entries are combined into a single fragmentary order.

b. Orders and requests for specific information are transmitted either as fragmentary orders or by means of the intelligence annex to the operation order or plan (see FM 101-5). Fragmentary orders are used most frequently because information requirements continually change. Security is provided in the transmission of orders and requests because knowledge of our requirements gives the enemy a basis for deducing the extent of our knowledge of his situation and our possible intentions.

7. The Intelligence Annex

a. An intelligence annex disseminates intelligence and intelligence instructions, to include orders and requests for the collection of information. It normally accompanies each complete operation order issued by division and higher commands. The form for the intelligence annex, and examples, are contained in FM 101-5.

b. Paragraph 3 of the intelligence annex, "Orders and Requests for Information," implements the collection worksheet. It contains a complete list of current orders and requests for information. Except for collection orders which are a part of the unit SOP, previously issued collection orders and requests *not* repeated in the intelligence annex are automatically canceled. When orders and requests are lengthy, they may be placed in an appendix to the intelligence annex.

c. Paragraph 4 of the intelligence annex lists under separate subparagraphs items not covered in the previous paragraphs or which require action different from that prescribed in the unit SOP. In preparing this paragraph, supporting intelligence agencies are consulted, as appropriate.

APPENDIX XVII

COUNTERINTELLIGENCE ESTIMATE FORM

(Classification)

Issuing section and headquarters¹

Place

Date and time

COUNTERINTELLIGENCE ESTIMATE NR

Reference: Maps or charts or other documents.

1. MISSION

State the assigned or assumed mission.

2. THE AREA OF OPERATIONS

This paragraph discusses characteristics of the area and their effect on enemy intelligence, subversive, and sabotage operations and on our counterintelligence operations and measures.

a. Weather.

(1) Existing situation.

(2) Effect on enemy intelligence, subversive, and sabotage operations.

(3) Effect on our counterintelligence operations and measures.

b. Terrain.

Analyze under the same headings as weather.

c. Other characteristics. The following additional characteristics are considered, as pertinent, in separate subparagraphs: sociology, politics, economics, psychology, and other factors. Other factors may include such items as science, material, transportation, manpower, and hydrography. They are analyzed under the same headings as weather.

3. ENEMY INTELLIGENCE, SABOTAGE, AND SUBVERSIVE SITUATION

a. Disposition.

¹ If distributed outside the headquarters, the first line of the heading is the official designation of the issuing command and the ending modified accordingly.

(Classification)

(Classification)

- b. Composition.
- c. Strength, including efficiency of enemy intelligence, subversive, and sabotage organization.
- d. Recent and present significant intelligence, subversive, and sabotage activities (including enemy's knowledge of our intelligence situation).
- e. Peculiarities and weaknesses.

4. ENEMY INTELLIGENCE, SABOTAGE, AND SUBVERSIVE CAPABILITIES

- a. List all capabilities under the following headings:
 - (1) Intelligence. (Include all methods of which the enemy is known or estimated to be capable.)
 - (2) Sabotage. (Include all capabilities of military, political, and economic sabotage possible of execution by agents and guerrillas.)
 - (3) Subversion. (Include all types, such as psychological warfare propaganda, sedition, treason, disaffection, affecting own troops, allies, and local civilians, and assistance in evasion and escape of hostile civilians.)
- b. Analysis and discussion of enemy capabilities to provide a basis for conclusions as to relative probability of adoption of enemy intelligence, subversive, and sabotage capabilities.

5. CONCLUSIONS

- a. Relative probability of adoption of enemy intelligence, subversive, and sabotage capabilities.
- b. Effects the capabilities will have on our courses of action including requirements for counterintelligence measures.

/s/
Chief, Counterintelligence Branch

(Classification)

UNIT: 20th Inf Div
Period covered: From: 131530 Jul. To: Capture of high ground at 1055-1457.

(1) Essential elements of information and other required intelligence items	(2) Indications (analysis of items in column 1)	(3) Basis for specific orders or requests and notes for future action	(4) Agencies to be used														(5) Hour and destination of reports	(6) Remarks	
			1st BG, 61st Inf	2d BG, 62d Inf	3d BG, 63d Inf	4th BG, 64th Inf	5th BG, 65th Inf	1st Cav Sq, 21st Cav	1st Inf Td Bn, 1st Armor	Div Arty	20th Engr Bn	20th Ass Co	Cg B, 484 Div Spt Co	55th Inf Div	22d Inf Div	1st Corps			Auxiliary agencies
EEI 1. What are the enemy dispositions? Special attention to organiza- tion of the ground, troops occupying strong points, and locations and activi- ties of reserves.	a. Location and strengths of— (1) Units in contact. (2) Reserves. (3) Artillery. (4) Others.	(1) Report location, strength, and activities of troops on JANINA-CELINA Ridge.		X				X		X	X		X		X	X	(1) As obtained. Negative reports every 2 hours starting 131800 July.	Assign to 3/63 when committed. ✓	
		(2) Report location and strength of occupied strong points vicinity Hill 408 (1651) and Hill 282 (1251).		X					X		X				X	X	(2) Same as (1).	✓	
		(3) Report location and strength of occupied strong points vicinity PLATEAU BELLERIVE.	X					X		X		X			X	X	(3) Same as (1).	+	
		(4) Report location and strength of occupied strong points vicinity BRAZOS Woods.	X	X				X		X		X			X	X	(4) Same as (1).	✓	
		(5) Report location and strength of occupied strong points on PETROV Woods Ridge vicinity 2050.	X					X		X		X			X		(5) Same as (1).	✓	
		(6) Report location and strength of occupied strong points on PETROV Woods Ridge vicinity 1849.		X				X		X		X			X		(6) Same as (1).	If positive, notify 1st Corps without delay and make maximum effort to get details for target analysis. +	
		(7) Report location and strength of troops in LARUNA River Valley vicinity LEON (1647).						X		X		X			X		(7) Same as (1).	If positive, notify 22d Inf Div and 1st Corps. +	
		(8) Report location and strength of troops vicinity Hill 326 (1153).			X			X		X		X			X	X	(8) Same as (1).	Cancel after damage assessment reports received. ✓	
		(9) Report location of all artillery and mortar posi- tions in zone to include those unoccupied and number of pieces.	X	X				X		X		X	X		X	X	X	(9) As obtained.	Check corps and army PERINTREPs. ✓
		(10) Report location and extent of demolitions, gassed areas, radiological and biological con- tamination, obstacles, and minefields to front, flanks, and forward of present position.	X	X				X		X	X	X			X	X	X	(10) As obtained.	SOP. +
Other Intelligence requirements 2. Will the enemy attack prior to 140430 July? If so, when, where, and in what strength? Special attention to the axes LEON (1647)—OSTRO (2046); Hill 406 (1849)—Hill 418 (1848).	c. Entrenching and erecting bands of wire.	(11) Report hostile entrenching and erection of bands of wire along present line of contact.	X	X				X		X					X		(11) As obtained.	Cancel at 140430. ✓	
		(12) Report hostile entrenching and bands of wire on JANINA-CELINA Ridge.		X				X		X					X	X	(12) As obtained.	✓	
	d. Dumping ammunition and engineer supplies and equipment, fortifying buildings.	(13) Report evidences of fortification of buildings in zone, particularly WACO (1451) and ST GEORGE (1554).		X											X	X	(13) As obtained.	If no information by 132300, try 1st Corps. ✓	
		(14) Report location of command posts and supply and evacuation installations in division zone north of road LA PALOMA—WACO special atten- tion to vicinity CR 1356.		X				X		X	X				X	X	(14) As obtained.	+	
	b. Location of enemy troops in forward assembly areas.	(15) Report volume and type of traffic across TAKASAN Canal and on roads leading south from CELINA, JANINA, CR 1356, and CR 1255.						X		X	X		X	X	X	X	(15) Same as (1).	Assign to 1/61, 2/62 when railroad through LA1 is reached. ✓	
		(16) Report location of troops, types, and numbers, vicinity 1550.						X		X		X				X		(16) As obtained.	Cancel at 140430. ✓
	c. Clearing of lanes through obstacles within own position.	(17) Report location of troops, types, and numbers vicinity 1851.		X						X		X				X		(17) As obtained.	Cancel at 140430. ✓
		(18) Report clearing of lanes through obstacles within Aggressor position in zone.	X	X				X		X	X		X					(18) As obtained.	Cancel at 140430. +
	e. Establishment and strengthening of counterrecon- naissance screen.	(19) Report the number, size, composition, routes, and time observed of enemy patrols in zone.	X	X	X	X	X	X	X	X								(19) As obtained.	✓
		(20) Report activity and size of units blocking our patrolling along line of contact.	X	X				X										(20) As obtained.	Cancel at 140430. ✓
f. Extensive artillery preparations.	(21) Report any marked change in artillery fire to include time, location, direction of fire, number of rounds, rate and caliber received in zone or area.	X	X	X	X	X	X	X	X	X	X						(21) As obtained.	SOP. +	
	(22) Report amount and type of air activity in zone, or area.	X	X	X	X	X	X	X	X		X						(22) As obtained.	SOP. +	
g. Increased air reconnaissance.	(23) Report new identifications.	X	X				X				X		X	X	X	X	(23) As obtained.	SOP. +	

APPENDIX XVIII

PARTIALLY COMPLETED COUNTERINTELLIGENCE MEASURES WORKSHEET

EXAMPLE, COUNTERINTELLIGENCE MEASURES WORKSHEET (PARTIAL)

UNIT: 20th Inf Div												
Period covered: From 180800 August TO: Seizure of SHMENDRICK and destruction of enemy in zone.												
(1) Phases or periods of the operation	(2) Categories of counter- intelligence activities involved	(3) Counterintelligence measures to be adopted	(4) Agencies responsible for execution of counterintelligence measures							(5) Instructions regarding entries in columns 3 and 4, notes for future action and staff coordination measures		
			Civil affairs platoon	Signal officer	Public information officer	Provost marshal	ASA support company	All units	Aviation officer		Division artillery	Security section
Period in assembly areas before attack.	1. MILITARY SECURITY	a. Secrecy discipline.	(1) Cover or paint all vehicle and aircraft markings.					(X)	(X)		Coordinate with G4. Provost marshal report violations.	
			(2) Remove identifications from uniforms.					(X)			Coordinate with G1. Provost marshal report violations.	
			(3) Restrict personnel to areas except when on official business.					(X)			Coordinate with G1. Provost marshal report violations.	
			(4) Emphasize security discipline in command posts, and elsewhere, with particular reference to handling of documents and maps, phone conversations, loose talk, and speculation which might convey information to the enemy. All personnel will be instructed regarding same.					(X)			Coordinate with G3. Security section assist with instruction and check.	
			(5) Report all breaches and suspected compromise of security at once to G2.				(X)	X		(X)	SOP	
		b. Security of nuclear weapons and delivery systems.	(6) Disseminate location of nuclear weapons on need-to-know basis.	(X)						(X)	Coordinate with G1, G3, and G4.	
			(7) Nuclear weapons units draw all supplies from division distributing points by use of own vehicles.							(X)	Coordinate with G4.	
			(8) Collect and place under guard or evacuate, as determined appropriate by unit commander, civilians in position to observe nuclear weapons, storage, and delivery sites.							(X)	Coordinate with G5.	
			c. Safeguarding of classified defense information and equipment.	(9) Check SOP plans for security of cryptographic devices; for destruction and for report of loss or compromise.	X			(X)	X		(X)	SOP. Security section check.
		(10) Check plans and equipment for destruction of documents in event of imminent capture.		X				X			SOP. Security section check.	
		d. Communication security.	(11) Maintain radio silence until further orders. No signal panels displayed.	X				X			Coordinate with G3 and signal officer.	
			(12) Check that unauthorized personnel are prohibited from entering message centers.	X				X		(X)	SOP.	
			(13) Patrol all wire lines used by units of division.	X				X			SOP. Check with signal officer for compliance.	
			(14) Cut all wire lines leading into Aggressor occupied territory.	X				X			Coordinate with 1st Corps and 22d Inf Div.	
		e. Security of troop movements.	(15) Prohibit movement of all military vehicles during hours of daylight except for staff parties and messengers authorized by battle group, separate battalion, trains commander, and higher headquarters.					(X)			Coordinate with G3 and G4. Provost marshal report violations.	
			(16) Establish control posts to restrict unauthorized vehicle movements in and out of assembly areas. Prevent congregation of vehicles at command posts. Start control measures before establishment of command posts.			(X)		X			Coordinate with G1 and G4.	
		f. Security control of accredited correspondents.	(17) Escort all radio, press, and other civilian visitors to public information office at division command post.		(X)			(X)			Coordinate with public information officer.	
			(18) Furnish accredited correspondents and photographers information subject to same restrictions as military personnel. Their credentials examined and approved by division G2 who will notify all concerned.		(X)			(X)			Coordinate with public information officer.	
			g. Concealment.	(19) Take oblique and vertical photos of bivouac area daily.					(X)	(X)		Coordinate with G3 and aviation officer.
				(20) Ensure that all stationary vehicles and installations are under natural concealment or camouflage.					X			SOP.
		(21) Black out all installations during darkness.						X			SOP. Provost marshal report violations.	
		(22) Vehicles use blackout lights in night movement.						X			SOP.	
		(23) Permit no open fires (except mess ranges) in assembly areas.						X			SOP.	
		(24) Personnel and vehicles stop and remain motionless if a flare appears at night.						X			SOP.	
		(25) Leave no paper, trash, or laundry exposed in assembly areas.						X			SOP. Security section inspect areas.	
		(26) Personnel and vehicles stop and remain motionless unless attacked if unidentified aircraft appears overhead during daylight.						X			SOP.	
		h. Counterespionage.	(27) Division aircraft remain grounded and concealed except when cleared by division.					(X)	(X)		Coordinate with G3, G4, and aviation officer.	
			(28) Conduct at least one inspection daily for violations of camouflage discipline.					(X)				
			(29) Establish check points to prevent movement of unauthorized civilians into or out of troop areas. Violators taken to civilian enclosures at * * * and * * *			(X)		(X)			Coordinate with G5, and G1.	
			(30) All arrests of civilians violating security regulations made by military police or other overt personnel. Only those suspected of being enemy agents turned over to the security section.			X		X			SOP. Coordinate with G5 and G1.	
		i. Tactical measures.	(31) Place roadblocks around perimeter of bivouac.					(X)			Coordinate with G3.	
			(32) Limit all movement to zone of 22d Inf Div before attack to reconnaissance parties. Approval before each trip obtained from division headquarters.					(X)			Coordinate with G3, G4, and G1. Provost marshal report violations.	
			(33) No firing at hostile planes unless directly attacked.					X			SOP.	
			(34) Establish ground surveillance to detect enemy parachute drops, infiltrators, and guerrillas.					(X)			Coordinate with G3.	
			(35) Guard bridge across the SCHLAMAZEL River.			(X)					Coordinate with G3 and 1st Corps.	
			(36) Establish motor patrols and check points along highways to control and check movement of civilians.	(X)		(X)					Coordinate with G5.	
	2. CIVIL SECURITY	a. Control of circulation.	(37) Restrict all civilians to area within 3 kilometers of homes. Permits to exceed this limit issued through civil affairs.	(X)				X		Coordinate with G5. Notify all units and provost marshal.		
			(38) Forbid civilians to ride in military vehicles without authorization of unit commander.					(X)		Provost marshal report violations. G5 disseminate to civilians.		
		b. Curfew.	(39) Enforce curfew for all civilians in area from 2000 to 0500 daily.	(X)		(X)				Coordinate with G5.		
			c. Passes and permits.	(40) Enforce civilian pass system in accordance with theater pass plan.	X		X		X		SOP.	
		d. Restricted areas.	(41) Forbid civilians, other than those living in the area or employed by our forces, to enter troop areas.	X		X		X		Coordinate with G5.		

APPENDIX XIX

OUTLINE FORM, DIVISION INTELLIGENCE SECTION SOP

(Classification)

G2 Section *** Division
Place of Issue
Date

STANDING OPERATING PROCEDURE, G2 SECTION

1. ORGANIZATION
2. RESPONSIBILITIES AND DUTIES
3. SHIFTS
4. TACTICAL OPERATIONS CENTER, G2 ELEMENT
 - a. Personnel.
 - b. Functions.
 - c. Procedures.
5. DETERMINATION OF EEW AND OTHER INTELLIGENCE REQUIREMENTS
6. PREPARATION OF PLANS AND ORDERS
7. TASKS FOR SUBORDINATE UNITS
8. REQUESTS TO HIGHER AND ADJACENT HEADQUARTERS
9. RECORDS AND FILES
 - a. Situation map.
 - b. Journal.
 - c. G2 Worksheet.
 - d. Files.
10. PRODUCTION
 - a. Estimates.
 - b. Summaries.
 - c. Effects of characteristics of area of operations.
 - d. Annexes.
 - e. Potential targets for nuclear weapons.
 - f. Weather.

(Classification)

11. DISSEMINATION
 - a. Own headquarters.
 - b. Subordinate units.
 - c. Adjacent units.
 - d. Higher headquarters.
12. LIAISON AND STAFF VISITS
13. PLANS
14. WAR ROOM
15. COMMAND POST MOVEMENT
16. HEADQUARTERS AND G2 SECTION SECURITY
 - a. Communication security.
 - b. Security of information.
 - c. Visitors.
 - d. Security checks.
17. MAPS, PHOTOS, AND OTHER INTELLIGENCE DOCUMENTS
 - a. Procurement.
 - b. Allocation.
 - c. Storage, distribution, and disposition.
 - d. Use within section.
18. COMMUNICATION CHANNELS
19. REPORTS
 - a. Routine.
 - b. Spot.
 - c. ISUM.
 - d. Order of battle.
 - e. Interrogation.
 - f. Air photo interpretation.
 - g. From higher and adjacent headquarters.
20. AUXILIARY AGENCIES
 - a. Military intelligence detachment.
 - b. ASA support company.
 - c. Technical intelligence detachments.
 - d. Others.
21. COORDINATION WITH OTHER GENERAL AND SPECIAL STAFF SECTIONS
22. TRAINING
 - a. Rotation of duties.
 - b. Advice and assistance to subordinate units and auxiliary agencies.

/s/

G2

APPENDIX XX

OUTLINE FORM, INTELLIGENCE PARAGRAPH OF A DIVISION SOP

(Classification)

Issuing Headquarters

Place of Issue

Date

* * * * *

3. INTELLIGENCE

(Concise instructions relating to each of the following.)

- a. Air reconnaissance.
 - (1) Requesting procedures.
 - (2) Coordination of supporting Army aviation.
 - (3) Reporting by organic and attached Army aviation.
- b. Ground reconnaissance and observation.
 - (1) Coordination of patrols.
 - (2) Coordination of use of ground surveillance devices.
 - (3) Coordination of observation posts.
 - (4) Observation reports.
- c. Measures for handling prisoners of war, suspect civilians, captured documents, and materiel.
 - (1) Prisoners of war.
 - (a) Searching.
 - (b) Segregation.
 - (c) Selected prisoners of war.
 - (d) Initial interrogation.
 - (e) Interrogation by prisoner of war specialists.
 - (f) Suspect civilians.
 - (g) Handling of wounded.
 - (2) Documents.
 - (a) Marking of documents.
 - (b) Document searches.
 - (c) Responsibility of unit intelligence officers.

(Classification)

(Classification)

- (d) Documents found on prisoners of war.
- (e) Disposition.
- (f) Souvenirs.
- (3) Materiel.
 - (a) Particular items desired.
 - (b) Reporting.
 - (c) Souvenirs.
 - (d) Guarding and disposition.
 - (e) Technical intelligence detachments.
- d. Maps, photos, and other intelligence aids.
 - (1) Basis of map distribution.
 - (2) Requests for maps and other intelligence aids.
 - (3) Distribution of photos.
 - (4) Requests for photos.
 - (5) Disposal of maps, photos, and training aids.
- e. Counterintelligence.
 - (1) Security of information.
 - (2) Radio and radar silence.
 - (3) Use of countersigns, paroles, and passwords.
 - (4) Communication security monitoring, reports of violations.
 - (5) Censorship.
 - (6) Compromise of countersign, parole, codes, or other classified matter.
 - (7) Camouflage, dispersion, and light discipline.
 - (8) Safeguarding of nuclear weapons systems.
 - (9) Control of civilians.
 - (10) Emergency destruction plans.
 - (11) Handling of security suspects.
- f. Reports and distribution.
 - (1) Spot reports.
 - (a) Standing requirements pertaining to enemy activities and locations.
 - (b) Standing requirements pertaining to characteristics of the area.
 - (2) Routine reports.
 - (3) Special reports.
 - (4) Reports from higher and adjacent headquarters.

* * * * *

(Classification)

APPENDIX XXI

ORGANIZATION FOR NATIONAL INTELLIGENCE

1. Introduction

The national intelligence organization consists of the agencies and organizations of the Federal Government which have intelligence interests or responsibilities. It is based on three major geographical and political areas. These areas are—

- a. The domestic United States.
- b. Foreign nations in which U. S. military forces are not stationed.
- c. Foreign nations under their own control and in which U. S. military forces are stationed.

2. The Domestic United States

Intelligence organization within the domestic United States is based on the supremacy of the civil authority over the military. Therefore, responsibilities for intelligence operations affecting the rights and prerogatives of civilians are assigned to a civilian agency of the executive branch of the government. By statutory authority, the Federal Bureau of Investigation has been assigned this responsibility. However, military commanders have exclusive authority to conduct military intelligence activities within their own forces.

3. Foreign Nations in Which U. S. Military Forces Are Not Stationed

Intelligence information collection activities in a foreign area, except by recognized attachés, are considered prejudicial to the best interests of the government of the nation concerned. Military and other attachés such as agricultural, scientific, and economic, collect information in accordance with established diplomatic practice.

4. Foreign Nations Under Their Own Control in Which U. S. Military Forces Are Stationed

- a. In these areas, U. S. forces normally are given the right, by treaty or other agreement, to conduct intelligence activities within their own forces and in the area immediately surrounding them as required for their own security. However, this does not include obtaining information about the nation in which they are stationed.

b. Intelligence information collection about the nation in which U. S. military forces are stationed is carried out by military and other attachés as described in paragraph 3 above.

c. In wartime, military authority becomes paramount in the area of operations. Military commanders are then the coordinators and controllers of *all* intelligence operations in the area.

5. Statutory Basis

The statutory basis for the national intelligence organization is the National Security Act of 1947, as amended (fig. 25).

6. The National Security Council

The National Security Act of 1947 established the National Security Council (NSC) under the President. In addition to its other activities, the NSC has issued intelligence directives. These directives express policy by which the national intelligence effort is guided and coordinated; committees for the fulfillment of specific intelligence functions; and responsibility for specific duties in designated fields of intelligence is delineated. The national intelligence policy calls for integration by the Director of Central Intelligence of the intelligence produced by the Central Intelligence Agency and all departmental intelligence relating to national security.

7. Central Intelligence Agency

a. The National Security Act of 1947 also established the Central Intelligence Agency (CIA). The CIA is under the NSC with a director and deputy director appointed by the President.

b. In coordinating the intelligence activities of the other government departments and agencies, the CIA performs the following functions:

- (1) Advises the NSC on intelligence activities of the government departments and agencies as related to national security and recommends coordination of such activities.
- (2) Correlates and evaluates intelligence on national security, and disseminates such intelligence within the government, using, where appropriate, existing agencies and facilities.
- (3) Performs for the other intelligence agencies such additional services of common concern as the NSC determines can be more efficiently accomplished centrally.
- (4) Performs such other functions and duties related to intelligence affecting the national security as the NSC may direct.

8. United States Intelligence Board (USIB)

The United States Intelligence Board is the heart of the national intelligence organization. In performing his coordinating duties, the

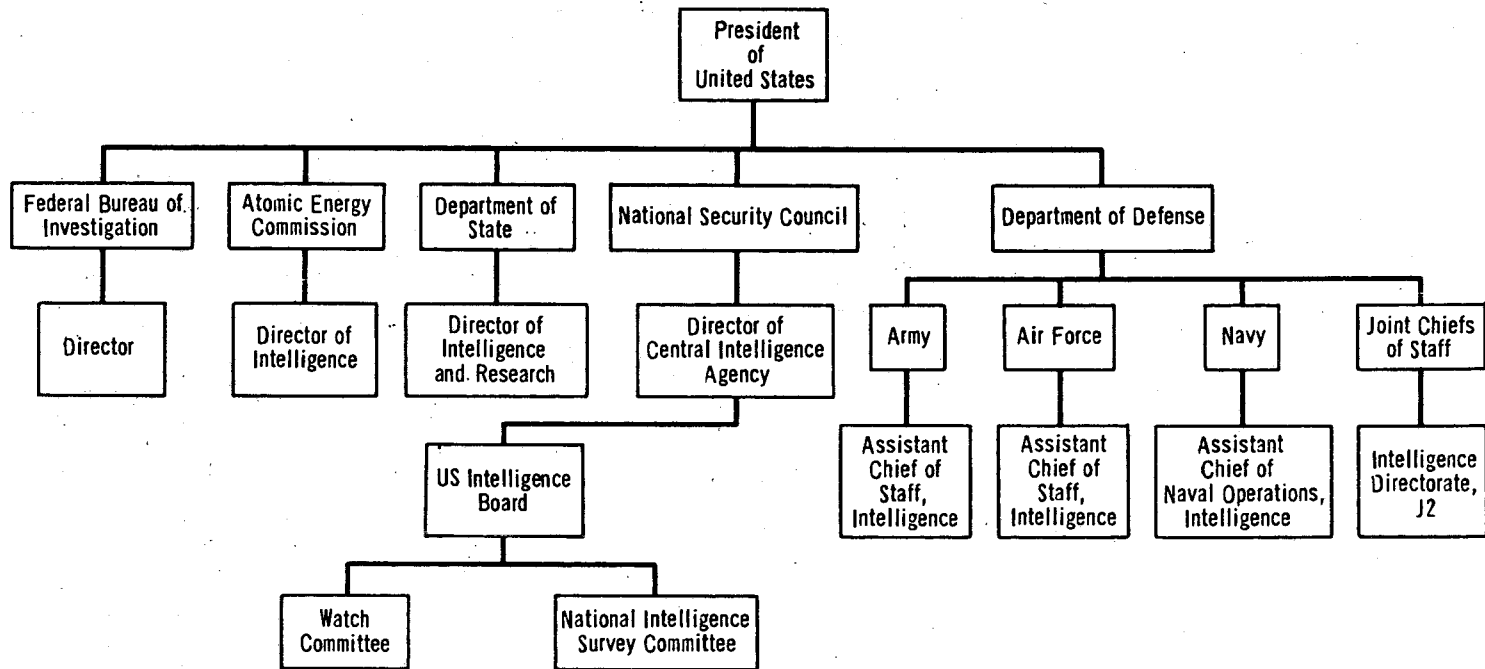


Figure 25. National intelligence organization.

Director of Central Intelligence relies heavily on the USIB. The USIB is the primary means for coordinating intelligence and intelligence activities of the governmental departments. The members of the USIB are the Director of Central Intelligence (the chairman); the Director of Intelligence and Research, Department of State; the Director for Intelligence, Joint Staff (JCS); the Assistant Chief of Staff, Intelligence (ACSI), Army; the Assistant Chief of Naval Operations (ACNO) (Intelligence) who is also the Director of Naval Intelligence (DNI); the Assistant Chief of Staff, Intelligence, Air Force; the Director of the Federal Bureau of Investigation; and a representative of the Atomic Energy Commission.

9. Department of Defense

The intelligence organization of the Department of Defense falls into two groups: one is under the Joint Chiefs of Staff, the other is composed of those within the three military departments.

10. J2, Intelligence Directorate, Joint Chiefs of Staff

The J2 Intelligence Directorate, with officers from all the military services is not an information collection agency. It obtains intelligence from the military services, CIA, and other sources. This intelligence is processed for use by the Joint Chiefs of Staff, the Joint Staff, and the Secretary of Defense.

11. Department of the Army

The Assistant Chief of Staff for Intelligence, Department of the Army, who reports directly to the Chief of Staff of the Army, is responsible for—

a. Planning, coordinating, and supervising the collection and evaluation of intelligence information and the production and dissemination of intelligence pertaining to the war potential, topography, military forces, and army activities of foreign nations as they affect the strategic vulnerability of the United States and its possessions.

b. Determining policy and exercising supervisory authority over procurement, assignment, and training of intelligence personnel for the Army.

c. Advising on counterintelligence matters and supervising counterintelligence activities.

d. Supervising military mapping.

e. Directing and operating the Army Attaché System.

f. Providing liaison between the Army and foreign army personnel in the United States.

g. Supervising and coordinating the performance of intelligence research and the production of military intelligence by the various

continental army and oversea commanders and heads of administrative and technical services.

h. Representing the Army on intelligence and counterintelligence matters in its relations with other government agencies and with foreign governments.

i. Accomplishing the Army communications intelligence and security missions and supporting the other service security agencies in accordance with appropriate directives of the Joint Chiefs of Staff, using, where applicable, the Army Security Agency (ASA) for these purposes.

12. Department of the Navy

The Assistant Chief of Naval Operations (ACNO) (Intelligence) is also the Director of Naval Intelligence (DNI) and reports directly to the Chief of Naval Operations. The Office of the Director of Naval Intelligence (ONI) administers, operates, and maintains, an intelligence service fulfilling the intelligence and counterintelligence requirements of the Department of the Navy for the purpose of—

a. Informing the Naval Establishment of the war making capabilities and intentions of foreign nations.

b. Providing the Naval Establishment with the intelligence needed for plans and operations, including warning of threats to security of the Naval Establishment.

c. Providing the naval contributions to joint, national, and international intelligence.

d. Promoting the intelligence readiness of the operating forces and other components of the Naval Establishment.

e. Coordinating the intelligence effort of the Naval Establishment to include intelligence training.

f. Developing and advising on policies for security and protection of classified matter, including industrial security.

g. Directing and operating the Naval Attaché System.

13. Department of the Air Force

The Assistant Chief of Staff, Intelligence, Headquarters U. S. Air Force, who reports directly to the Chief of Staff of the Air Force, is responsible for—

a. Ascertaining Air Force intelligence requirements and air intelligence requirements of other governmental agencies and obtaining intelligence and information to satisfy such requirements.

b. Directing the production of air intelligence required by the Secretary of the Air Force, the Chief of Staff, U. S. Air Force, and Head-

quarters, U. S. Air Force, for command decisions and counsel upon air preparedness and air operations.

c. Representing the Department of the Air Force on intelligence matters with other departments and agencies of the government and with foreign governments.

d. Coordinating Air Force intelligence activities with other governmental intelligence agencies.

e. Providing liaison between the Air Force and authorized foreign military air representatives; monitoring the military diplomatic aspects of Air Force policies toward foreign nations; and advising on matters of protocol.

f. Assisting in the determination of requirements and standards for the training of Air Force intelligence personnel.

g. Directing the operation of the U. S. Air Force intelligence collection plan and Air Attaché System.

h. Controlling the release of classified Air Force information to foreign governments and civilians.

i. Exercising staff supervision of activities of the Air Force Security Service (AFSS). The functions of security and counterintelligence are not the responsibility of the Assistant Chief of Staff, Intelligence, but are assigned to the Director, Special Investigations, who is under the Inspector General.

14. Department of State

The Director of Intelligence and Research, Department of State, develops and implements a coordinated program for foreign intelligence for the Department of State. Particularly important is his responsibility for providing the intelligence support required by the Secretary of State in his position as principal adviser to the President on foreign policy and as a member of the NSC. The Director of Intelligence and Research also provides staff assistance to the policy officers of the Department of State and maintains liaison with other intelligence organizations in carrying out the Department's responsibility in the intelligence program of the government.

15. Federal Bureau of Investigation

The Federal Bureau of Investigation (FBI) has jurisdiction over investigations in the United States concerning espionage, sabotage, treason, and other matters of internal security. All investigations conducted by any other agencies, which develop adverse information involving loyalty or information showing coercion of an employee to act contrary to the interests of the national security, are referred to the FBI for investigation.

16. Interdepartmental Intelligence Conference

The Director of the FBI, the Assistant Chief of Staff, Intelligence, Department of the Army; the Director of Naval Intelligence; and the Director of Special Investigations, Headquarters, U. S. Air Force are among the members of the Interdepartmental Intelligence Conference (IIC). This body coordinates the investigation of all domestic espionage, counterespionage, sabotage, subversion, and related intelligence matters affecting internal security. The IIC responsibility does not lessen the responsibilities of the member agencies. However, it requires exchange of information and coordination of action among the agencies and departments to insure complete investigative coverage without duplication of effort.

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[AG 353 (17 Nov 59)]

By Order of *Wilber M. Brucker*, Secretary of the Army:

L. L. LEMNITZER,
General, United States Army,
Chief of Staff.

Official:

R. V. LEE,
Major General, United States Army,
The Adjutant General.

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USA Avn Bd (2)	USASWS (75)
US ARADCOM (5)	Joint Sch (5)
US ARADCOM Rgn (5)	PMST Sr Div Units (2)
OS Maj Comd(10)	PMST Jr Div Units (2)
OS Base Comd (5)	PMST Mil Sch Div Units (2)
Log Comd (2)	GENDEP (2)
MDW (2)	MAAG (1)
Armies (10) except	Mil Msn (1)
First US Army (12)	USA Corps (Res) (1)
Corps (10)	

NG: State AG (3); units—same as Active Army except allowance is one copy to each unit.

USAR: Same as Active Army.

For explanation of abbreviations used, see AR 320-50.

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